

MICHIGAN FARMER

AND STATE JOURNAL OF AGRICULTURE.

JOHNSTONE & GIBBONS, Publishers

DETROIT, TUESDAY, JANUARY 16 1883.

PRICE, \$1.65 PER YEAR

VOLUME XIV.

"PRACTICE WITH THEORY AND SCIENCE."

NUMBER 3.

CONTENTS.

Agricultural—State Agricultural Society—Answers to Correspondents—Raising Beans—Holstein Cattle Breeders' Association—The Farm—Endings—An Iowa Farmer's Opinion of Fodder Crops—Agricultural Items—The Pottery Yard—Shipping Pottery—Horticultural—Stone Fruits—Cultivation of the Apple—Strawberry Culture—Packing Flowers—Bananas and Plantains—Selecting Orchard Trees—The Citron—Horticultural Notes—Editorial—Wheat—Corn and Oats—Hops and Barley—Soda and Potatoes—Dairy Products—The Pork Trade—A Matter of Dollars and Cents—Stock Notes—The Stock Farm of Hiram Walker & Sons—News Summary—Michigan—General—Foreign—Farm Law—Poetry—A Sermon in Rhyme—December—Will Miscellaneous—A Cabinet Secret—Poisonous Sweets—Young America—How a Man Sows on Buttons—A Modern Faust—Thought His Time Had Come—A Miner's Bear Story—Varieties—Chaff—Household—Don't Marry a Man to Save Him—The Value of Water—Dancing—More About Dancing—Useful Recipes—Veterinary—Wolf Teeth in Horses, Cramp—Discussed Lambs—City Items—Commerce	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
--	--

Agricultural.

STATE AGRICULTURAL SOCIETY.

Annual Meeting of the Executive Committee.

SECOND DAY.

The committee met on Tuesday morning, and after organizing for business, reports of superintendents of the various departments were called for. Each superintendent gave a short report of the character of the display, number of entries and the awards made in his department.

President Fralick announced the following standing committees:

Transportation.—J. M. Sterling, Wm. L. Webster, J. W. Baxter.

Finance.—Wm. Ball, E. W. Rising, M. P. Anderson.

Premium List.—Baxter, Ball, Chamberlain, Cobb, Butterfield, Hanford, Lessiter, Rules.—Harrison, Phillips, Burrington, J. M. Sterling, Wood.

Reception.—Parsons, Shoemaker, Beckwith.

Printing.—Dean, J. C. Sterling, Lessiter.

The committee then took a recess until 2 o'clock.

AFTERNOON SESSION.

Mr. Cobb, chairman of committee to whom a protest against the award of a premium to a horse entered by Mr. Ray Warner was referred, reported in favor of sustaining the protest on the ground that said horse had been entered for two premiums, contrary to the rules of the society. The report was accepted.

Mr. Cobb also reported in favor of sustaining the protest of Austin, Tomlinson & Webster in the class of farm wagons, on the ground that one of the awarding committee was prejudiced, and recommended that the awards in that class be declared void. The report was accepted and adopted.

The committee on President's address reported, referring the various recommendations contained in it to appropriate committees.

Mr. Baxter asked to be excused from serving as a member of the committee on premium list. Request granted and Mr. A. F. Wood appointed in his place.

The report of the State Horticultural Society in reference to the department under their charge at the State Fair was presented, which was accepted and referred to a committee.

Adjourned till Wednesday morning at nine o'clock.

THIRD DAY.

The committee met as per adjournment, with President Fralick in the chair and a full board present.

Mr. Parsons presented an invitation from Hiram Walker & Sons to visit their stock farm, and it was accepted.

The committee on premium list submitted the following report:

Having carefully considered the list, we have made such changes as in our opinion seemed necessary in the progress of agricultural and other interests, and for the interests of this Society. Most of the changes made have the approval of the superintendents in the several departments.

WILLIAM BALL,
WILLIAM CHAMBERLAIN,
J. H. COBB,
J. H. BUTTERFIELD, JR.,
H. O. HANFORD,
A. F. WOOD,
JOHN LESSITER,
Committee.

The report was accepted. On motion, the premium list for Children's Department was referred to Miss Brown and the Secretary, who were authorized to arrange a list not to exceed \$50, to be published in the annual premium list.

It was then moved that the report of the premium committee, relative to class 1, be adopted.

Mr. Baxter moved to amend by striking out all the fourth premiums in this class. The amendment was lost.

The same gentleman then moved to amend by striking out the Sweepstakes premiums for Michigan cattle.

A lengthy discussion was had on the question, and was participated in by

Messrs. Baxter, Ball, Hanford, Smith, Sterling, Chamberlain, Wood, Brooks, Phelps and Hinds.

The yeas and nays were then called for on Mr. Baxter's amendment, which was lost by the following vote:

Yeas—Messrs. Sterling, Smith, Baxter and the President—4.
Nays—Messrs. Rising, Hanford, Ball, Lessiter, Cobb, Mitchell, Hyde, Reed, Burrington, Wood, Chamberlain, Parsons, Angell, Howard, Harrison, Butterfield, Gilbert, Anderson and Dean—19.

The original motion was then adopted. It was then moved and supported to adopt the balance of the report relative to Division A.

Mr. Baxter moved to amend by striking out sweepstakes premiums for Michigan cattle. Lost.

The original motion was then adopted.

It was moved and supported to adopt the report of the committee relative to Division B.

Mr. Baxter moved to amend by striking out all special premiums for Michigan horses. Lost.

The original motion was then adopted.

Moved and supported that the report of the committee relative to Division C be adopted.

Mr. Baxter moved to amend by striking out special premiums on Michigan sheep. Lost.

Mr. Chamberlain offered an amendment to the list for Class 29, Fat Sheep, which was adopted.

The motion, as amended, was then adopted.

The report of the committee relative to Divisions D, E, F, G, H, I, J, K, L and M was taken up by divisions and adopted. The report relative to Division N was referred back to the committee for further consideration. The report relative to Divisions O and Q were adopted.

The recommendation of the committee relative to Northern exhibit was adopted.

The President appointed Messrs. W. J. Baxter, W. L. Webster and J. M. Sterling a special committee on Northern exhibit. The committee took a recess until two o'clock.

AFTERNOON SESSION.

On motion, the committee on Northern exhibit was authorized to make a premium list, to be printed with the premium list for 1883.

On motion of Mr. Hanford, it was voted to adopt the report of the committee on premiums as a whole, with the exception of the Art Department.

Mr. Farley, secretary of the Ohio, Michigan and Indiana Fair Circuit, was invited to address the meeting, and made some interesting remarks. He suggested that a convention of delegates from agricultural societies be held during the winter. It was moved that the suggestions of Mr. Farley relative to an agricultural convention be referred to the committee on Fair Circuit.

As the various committees were not prepared to report the committee adjourned until nine o'clock Thursday.

FOURTH DAY.

The committee met pursuant to adjournment, President Fralick in the chair. The bonds of the Secretary and Treasurer were presented and referred to the finance committee.

The finance committee reported that they had examined the reports of the Secretary, Treasurer and business committee and found them correct. The reports were accepted and adopted.

The Michigan State Association of Agricultural Societies sent an invitation to the Society to send three delegates to their tenth annual convention, which meets at Lansing on the 7th of February. Invitation accepted, and Messrs. Cobb, Ball and Wood appointed such committee.

Mr. E. O. Humphrey referred to the death of Hon. J. Webster Childs, an old member of the Committee, and moved the appointment of a committee of three to take action thereon. The motion was carried, and the President appointed Messrs. Humphrey, Smith and Gilbert as such committee.

Messrs. F. V. Smith, A. O. Hyde and G. W. Phillips were appointed a committee on programme.

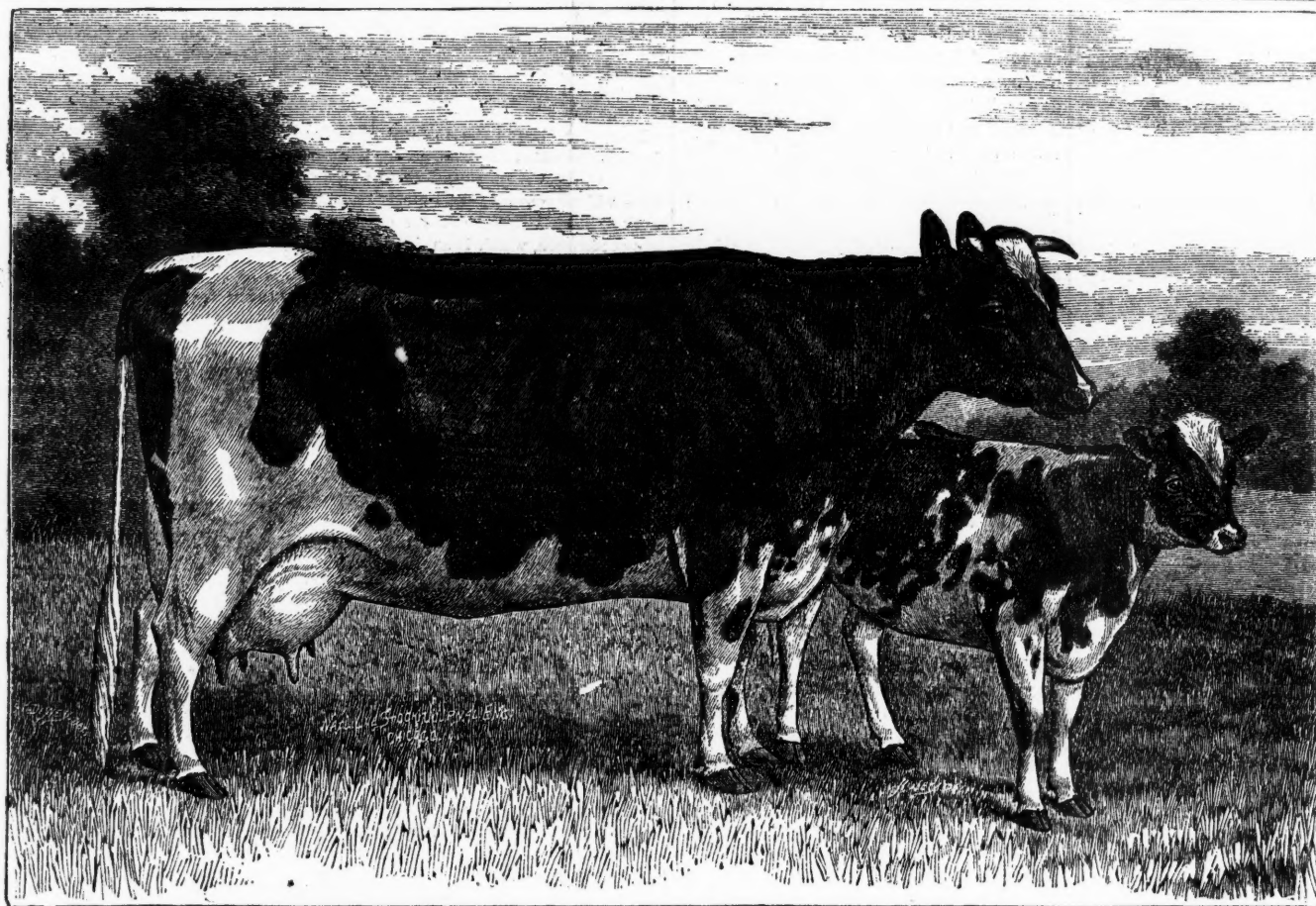
The committee on that part of the President's address referring to the State Horticultural Society, reported as follows:

Your committee on so much of the President's address as refers to inviting the Horticultural Society to exhibit with the State Agricultural Society in 1883, and the amount of money to be appropriated to aid in making such exhibit, would respectfully report that we have great pleasure in recommending a hearty invitation and an appropriation of \$1,000, to be distributed in premiums on the same terms and conditions, if awarded, as in 1882; also \$1,400 for expenses, or such amount, limited by the foregoing sums, as the wants of the said Society may require. In this connection we wish to bear witness to the untiring energy and wisdom displayed by the officers of the Horticultural Society, in contributing to the success of the meeting of 1882.

PHILO PARSONS,
J. Q. A. BURRINGTON.

Mr. Ewart H. Scott, chairman of the Business Committee of the State Horticultural Society, accepted the above proposition on behalf of that Society.

The committee on rules submitted their report, and it was discussed section by section. The recommendation of the committee that no spirituous or malt liquors be allowed to be sold on the



The Holstein Cow "Rosa Bonheur" and Calf, the Property of Wm. Westover, of Bay City, Mich.

grounds during the Fair, was amended by striking out the word "malt," and then adopted. The report, which was quite lengthy, was amended slightly and then adopted. We shall give a summary of the changes made hereafter.

The committee appointed by the Society to attend the meeting of the National Agricultural Association at Chicago, submitted their report, which was adopted. A recess was then taken.

AFTERNOON SESSION.

President Fralick appointed Messrs. Chamberlain, Wood and Lessiter a special committee on the College Farm, to report at next annual meeting.

The President appointed the Business Committee, Transportation Committee, President, Treasurer and Secretary a committee to secure propositions for a permanent location of the Fair.

Mr. Morrison, President of the Kalamazoo County Agricultural Society, addressed the meeting, and invited the Society to hold its next annual fair at Kalamazoo.

Mr. Parsons invited the Society to hold the Fair of 1883 in the city of Detroit.

Dr. Mitchell stated that the citizens of Jackson would be prepared to make a proposition for the Fair as soon as the Locating Committee was ready to receive propositions.

Mr. Wood then stated that the Eastern Michigan Agricultural Society would soon be in shape to make a proposition.

On motion of Mr. Chamberlain, the subject was referred to the Locating Committee.

The special committee appointed to take action in reference to the death of Hon. J. Webster Childs, reported as follows:

To the President and Directors of the State Agricultural Society:
GENTLEMEN—Your committee to whom was assigned the duty of putting into effect and giving expression to the sentiments of this Committee in memory of our late brother and co-laborer, the Hon. J. Webster Childs, respectfully report:

There are times in the history of societies as of individuals when words are barren things, and we shall probably fail in meeting your expectations in paying a proper tribute to our deceased brother.

Years of active, faithful and unselfish public service on this Committee, in the legislative councils of the State, and in various agricultural organizations, endeared him to a wide circle of friends, who join with the family in mourning his loss. This committee especially tenders its sympathy, and congratulates those upon whom the blow falls most heavily upon the good name and example left as an enduring inheritance.

E. O. HUMPHREY,
F. V. SMITH,
JOHN GILBERT,
Committee.

On motion the report was adopted, ordered printed in the proceedings of the Society, and a copy sent to the family of the deceased.

Mr. Parsons, of the Committee on College Farm, submitted a lengthy report, speaking very highly of that institution and its management. The report was accepted.

Mr. Harrison moved that so much of the report as referred to Ayrshire cattle be stricken out, but the motion was voted down. We shall print the report in another issue.

The date of the next annual Fair was fixed to begin Monday, September 17, and last five days.

The salary of the Secretary was fixed at \$1,000 per year, and the Treasurer was allowed \$400 to pay a book-keeper.

The various railroads were thanked for courtesies to members and exhibitors at the late Fair.

A resolution was unanimously adopted thanking Mr. John Gilbert, chairman of the Business Committee, for his efficient services, and a committee appointed to prepare some token of this regard to be presented to Mr. Gilbert.

The President appointed the following Committee and Superintendents:

Business Committee—W. H. Cobb, A. O. Hyde, F. V. Smith.
General Superintendent—E. O. Humphrey.

Chief Marshal—A. O. Hyde.

Cattle—J. H. Butterfield, Jr.

Horses—F. V. Smith, G. W. Phillips.

Sheep—D. W. Howard.

Swine—John Lessiter.

Poultry—J. Q. A. Burrington.

Machinery and Miscellaneous—Wm. Chamberlain.

Fine Arts—A. A. Harrison, Philo Parsons.

Music—M. P. Anderson.

Needle and Fancy Work and Children's Department—Minnie Brown.

Manufactures—A. F. Wood.

Agriculture—J. L. Mitchell.

Farming Implements—Hanford and Angell.

Dairy—F. L. Reed.

Vehicles—John Gilbert.

Bees, Honey, etc.—W. J. Baxter.

Swine—D. W. Howard.

Police—J. M. Sterling, Wm. Ball, J. M. Sterling.

Gates and Gatekeepers—Wm. Ball, J. M. Sterling.

The committee, on motion, adjourned till 9 o'clock Friday morning.

The committee met, and adjourned to accept the invitation to visit the Walker farm.

Upon returning, some routine business was attended to, and after adopting the following resolutions the Committee adjourned sine die.

Resolved, That the thanks of the Executive Committee of the State Agricultural Society be, and hereby are tendered to Messrs. Hiram Walker & Sons for their very courteous invitation to visit their extensive farms and view their fine stock.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

Resolved, That we have pleasure in congratulating the Messrs. Walker's on the high character of the stock in cattle, horses and swine, and the practical manner in which they are handled by Mr. C. Swann, and the benefit which must accrue to the community from their energy and enterprise in this direction, and we wish them all pecuniary success in their endeavors to improve the stock of the country.

The most shelled corn, an acre drilled with Flint or an acre drilled with Dent?

The plausible theory of drilling corn has led many farmers to adopt it on trial, but practice does not confirm the theory. The advantages are only in the saving of labor in the marking, and a simpler method of planting by machinery. The causes that disprove the theory are two, viz: a tendency to distribute too much seed, and the hindrance to cultivation from the continuous rows.

Thorough cultivation is an essential requisite in growing a maximum crop of corn. In the hill system a space only ten inches square out of four feet need be left uncultivated, while in the drilled field a space ten inches wide and four feet long is left which cannot be stirred by the cultivator. This leaves one-fifth of the ground cultivated, and that is about the proportion of loss as compared with corn planted in rows both ways.

2d. Dent corn in the southern three-fourths of the area of southern Michigan will give the largest yield of shelled corn. "Which is the better for feeding sheep, Flint or Dent corn?"

The preference is for Dent corn for feeding whole to all domestic animals: while a chemical analysis may show a stronger nutritive condition in the Flint than in the Dent, yet the Dent is more assimilable from better mastication and preferred by all animals.

RAISING BEANS.

GRAND RAPIDS, Jan. 3, 1883.

To the Editor of the Michigan Farmer.

I have taken your paper since last June and I do not remember of ever seeing an article in it on bean culture. I want to plant twenty acres next spring of the medium white variety, and I should be pleased to hear from some one who has had experience in raising beans—what time to plant—how far apart and how much seed to the acre, in order to get the largest yield possible. My ground is sandy and gravelly and a good clover sod. I have got plenty of help to tend and to take care of them. I want to know if it makes any difference what time in the moon they are planted; some say it does.

A. H. GUILD.

ANSWER TO CORRESPONDENTS.

"Which is the best time to feed grain to sheep, morning, noon or night. 2d. Will 14 bushels of corn and one bushel of bran do more good if fed one half in the morning and one half at night, than if fed all at one feed, to one hundred sheep?"

It is very difficult to answer a question specifically unless all the considerations are stated. This correspondent does not state whether his flock is a mixed lot of sheep, including a large per cent. of breeding ewes, or whether they are assorted for fattening. This answer will be based on the assumption that the former is the true state of the case, and that the inquirer is the average farmer of Michigan who does his own chores, but finds something necessary to be done almost every day besides which takes him away from his farm.

As regularity is one of the essential things in feeding sheep, and the morning finds the farmer at home to feed at a stated time, the morning seems the best time to arrange for feeding grain to sheep. The exercise during the day also aids digestion. Feed the usual ration of fodder before breakfast, then feed the grain afterward before turning out to water or to the stalk field.

2d. This allowance should be divided, certainly, and fed morning and night. It is too large by half to be fed at one time. If the flock is fed hay or stalks, half the quantity daily in the morning is sufficient. Breeding ewes should not be fed too high on grain or the lambs will be weak and a large proportion of them will be lost. The mean between no grain and high feeding is the proper condition to keep the flock if we expect a natural increase.

"Can a larger crop of Dent corn be raised by drilling than by hilling with the same amount of work? 2d. Which will give

according to the size and perfectness of the bean. On good strong soil, and with the medium variety, forty pounds is a sufficient quantity, while the smaller pea variety requires less, or about a half bushel. If the soil is weak from frequent cropping, a less amount should be used.

Beans should be planted at such a distance between the rows as will best conform to the width of the tool which it is proposed to use in their cultivation. A two horse cultivator of some kind is the best tool, but at 30 inches apart the wheels will run on the rows and prevent its use. Most grain drills can be rigged to plant beans by stopping up all but two or three holes, which are left for dropping the seed. If a bean planter with double rows is used, which is set too close for a wheel cultivator to work in the row, lengthen the check-mark pole so that, every alternate space shall be wider; then the cultivator will work by driving one horse near the row and, and pushing the cultivator teeth to that side. Where ground is clear two cultivations are all that is required. Beans should not be cultivated while the dew is on or when wet by rain. If dirt adheres to the leaves, they rust and are destroyed. A bean harrower is made in Brockport, N. Y., which works with two horses and pulls two rows at a time. The cutting apparatus is V shaped, running with the open end in front. A rod above ground over each cutting shear carries the beans together and leaves them in one continuous row.

With a four-tined, long handled pitchfork they can be pitched into piles to dry, when they can be loaded and hauled to the barn.

The questionings of this correspondent all seem to be of a very serious nature, and no doubt his inquiry in regard to the moon's influence on the growth of beans is also a serious one. The moon has many mundane duties to perform, and among these there are doubtless some that are not fully understood, but how the waning moon can affect a seed planted under it, which may not see its face for a week or more, is hard to understand. It is claimed by moonish people that beans planted at the proper time of the moon will bear more pods, and at the wrong time will run to vines. This trait in the growth of beans is easily accounted for without going so far as the moon for a cause. Late planted beans often reach the maturing period in a wet, growing time, and then instead of ripening, new growths push out. Plants grow in periods or by stages. A normal growth is, when each stage is fostered by propitious skies and favoring conditions; a checked growth in any stage shortens the crop but in different degrees; and because the reasons are not clearly seen, the loss or gain is charged against or credited to the moon. The Farmer will assure its correspondent that the more he raises beans the less he will counsel with the moon.

We present our readers this week with an illustration of the Holstein cow "Rosa Bonheur," and her last calf, the property of Mr. Wm. Westover, of Bay City, Mich. As will be seen by her lines, she is one of the handsomest animals of this breed ever brought into the State. Her first calf was dropped April 24, 1881, and up to March 13th, 1882, she gave 13,137 pounds 4 ounces of milk, a record which is an extraordinary one for a two year old.

While the west has been blessed with a very fine winter, it seems some of the New England States are not so fortunate. In Maine, New Hampshire and Vermont many of the mills are

The Farm.

ENSILAGE.

Report of Experiments and Tests made by Prof. Samuel Johnson at the Agricultural College.

Prof. Samuel Johnson, of the Michigan State Agricultural College, has, for the past two seasons, been engaged in testing the value of ensilage as food for stock, and he has published a careful report of the results of his experiments, including in it the cost of building the silo and harvesting and preparing the fodder. As the report is somewhat lengthy, and too valuable to allow of further condensation, we divide it into two parts, and will give the second part in our next issue.

At the last regular session of the Legislature an appropriation was made of one thousand dollars "for the purpose of conducting experiments with ensilage for the feeding of animals, the culture of amber cane and new varieties of grain and beet roots by the farm department of the Agricultural College." The bill was not passed until quite late in the session, being approved June 11, 1931, so that we were somewhat hurried in the preliminary work of preparing the ground and building the silo. As a new grain barn, with high basement walls, was being erected on the farm, we decided to build the silo in one corner of this basement, with the thought that if the ensilage experiment was not satisfactory, the silo could be utilized as a root cellar. A space in the northeast corner was chosen for this purpose, and a wall made eighteen inches thick, well laid with common field stone and strong mortar. Tiles were laid to carry off the water, and the floor was then covered with small stones, bedded in cement, and then cemented, as well as the sides, until all was smooth, and supposed to be air and water tight. The inside measurement of the silo is 14x15 feet, and walls eight feet high. There is a door four feet wide and six feet high from the silo into the basement, where the ensilage is taken out. From the wall on two sides a frame four feet high extends, sided with matched stuff and covered with a tight floor—the barn forming the other two sides. Two doors from the barn floor, 3x4, open into this upper space, where the ensilage is run from the cutter into the silo, and a door of the same size is on the outside for putting in and taking out the stones used for weighting the ensilage. This frame extension from the walls gives space for the weights and allows us to fill the silo to nearly its full capacity after the pressure has been applied. Where circumstances will admit, I think the barn basement is the proper place for the silo. It is near the stables, where it is to be used, and a door through which it may be taken out, directly to the animals, is more convenient than to lift the ensilage over the top of the wall. Silos can be built in almost any barn in this manner at much less expense than if built separately, as no extra expense for roof is incurred. When filling the silo, matched plank were fitted in the doorway to the basement, and the ensilage packed against these as the filling proceeded. When opened the ensilage was found to be as perfectly preserved next to these plank as in any other part of the outside of the silo. Matched plank, two inches thick, were used as a cover, care being taken to have them fit closely, but not to bind in the settling. The items of expense incurred in building the silo are as follows:

Excavation.....	\$10.00
Plowing and harrowing 1½ acres.....	3.00
Marking and planting.....	2.74
The bushes seed, at 20 cents a bushel.....	3.00
Cultivating three times.....	2.50
300 hours student labor, at 8 cents.....	24.00
2½ hours team labor, at one shilling.....	4.00
15 hours men's labor, at one shilling.....	1.88
	\$41.81

This makes the entire cost of growing corn and placing in silo \$3.09 per ton. This amount also includes the time of getting the horse power from a neighboring farm and returning the same, and some allowance must be made for delays that were unavoidable in work with which none of us were familiar.

There was no outward sign of any change going on within the silo. Only a temporary roof was over it for a time, and on one or two occasions it was left in such shape as to receive some rain. On December 15th the silo was opened. The ensilage was found to be nicely preserved. There was no mold next to the plank or sides worth mentioning, and there has not been one per cent of waste.

The thorough exclusion of the air is the secret of its preservation. It matters but little what materials are used for the silo—lumber, stone, or merely pits—if the air is only excluded the fodder will be preserved. Many farmers at the institutes during the winter have asked: "How do you get the ensilage from the silo?" and so I refer to it here. The stones were thrown back from five of the plank next to the basement door, the plank removed, and this section was cut down with a hay knife and taken out with a four-tined fork and placed in baskets to be taken to the stable. After this section had been disposed of the process was repeated, only taking off the cover as needed (another advantage in weighing in this way). The process is similar to cutting down a hay-mow.

Excavation.....	\$10.00
Fifty-six per cent of stone, at 75¢ a perch.....	42.00
Laying stone, at 50 cents a perch.....	32.00
Ten barrels lime, at \$1.10.....	11.00
Sand.....	3.40
Four barrels cement, at \$1.45.....	5.80
Grouting bottom, cementing sides, etc.....	9.00
Doors and frames above.....	5.00
Plank for covering silo.....	6.00
	\$131.20

CORN FODDER GROWN FOR ENSILAGE.

The land upon which the fodder corn grew is a sandy loam—sand predominating. It had grown a corn crop the previous year, and was clean, but not sufficiently fertilized to produce a large crop. It was put in good condition to receive the seed, and drills marked three and one-half feet apart. June 11th the plot of 1½ acres was planted with the Hathaway dent corn—the variety grown upon the farm for some years. Corn was dropped in the drills and covered by hand, at the rate of one and a half bushels to the acre. I think less seed would have given a larger yield, as it was too thick to make a large growth. The corn came up well and grew very rapidly, receiving three cultivations, and being kept free from weeds. In August the severe drought began to tell upon its growth—the leaves and some of the stalks turning yellow, occasioned by the dry weather and the crowded state of the plants. But few ears formed. I quote from our field notes: July 21st—The ensilage corn is rolling considerably. July 28th—The ensilage corn has been at a stand-still for a week, on account of the extreme dry weather. August 8th—The ensilage corn has been shortened a good deal by the dry weather. August 18th—Continued rains. The ensilage corn, though cut short, seems to be making some growth at present. August 26th—The ensilage corn is again nearly at a stand still, owing to the dry weather. That the dry weather shortened the crop was plainly evident.

We began cutting the corn and filling the silo on Monday, Sept. 13th. The most of the stalks were green and full of juice at this time. On some parts of the plot some stalks were browned and the lower leaves dried, but to no great extent. A two-horse tread-power and our ordinary stalk-cutter, made at Fulton, N. Y., were used. A one-horse cart, and a double team and wagon drew the corn to the silo, which was only a few rods distant. The work was mainly done by students, who only work three hours in the afternoon, and so no full day's work was performed. On Wednesday, the 15th, it rained, and the cut fodder was somewhat wet, and some corn was cut while the water was dripping from it. On Thursday, the 16th, we finished the cutting. The corn, cut in pieces about one-half inch in length, was run directly to a

silo, where it was spread and tramped down as compactly as possible. Nothing was mixed with the fodder, and no other crop but corn was put in the silo. We cut at the rate of two tons an hour, I think, and we found the tread-power to answer a very good purpose. With a large machine more power would be needed, but twenty tons a day works it up quite as rapidly as most farmers will desire. Farmers will, I think, find any good power-cutter will do as well, perhaps, as some of the more recently patented machines known as ensilage cutters. The stalks were not weighed when put in, but we have weighed the ensilage as it was taken from the silo, and it weighs out 40,000 pounds, in round numbers, or between twelve and eleven tons to the acre. This yield is a very fair one, when the condition of the land and the season are taken into account; but I have no doubt that it might be trebled, perhaps more, under the most favorable conditions.

COVERING THE SILO.

The ensilage having been carefully leveled, so that the pressure should be equal, the planks, two inches thick, and eight inches wide, were nicely fitted as the covering proceeded, care being taken that there should be no danger of binding at the ends, as the settling continued. It was then weighted immediately with stones, at the rate of nine hundred pounds to the square yard.

Various means for securing the desired pressure for the ensilage have been suggested, but it seems quite probable that weights of stone, wood, bags of grain, or boxes of earth will be found after all most desirable, as such pressure is constant and needs no watching, while a screw-power, neglected or forgotten, will be quite likely to result in failure. The labor of putting on the stones and taking them off is no great item in the account. The stones we used had to be drawn a short distance, and three boys with a one-horse cart weighted the silo in four hours.

Plowing and harrowing 1½ acres.....	\$3.00
Marking and planting.....	2.74
The bushes seed, at 20 cents a bushel.....	3.00
Cultivating three times.....	2.50
300 hours student labor, at 8 cents.....	24.00
2½ hours team labor, at one shilling.....	4.00
15 hours men's labor, at one shilling.....	1.88
	\$41.81

This makes the entire cost of growing corn and placing in silo \$3.09 per ton. This amount also includes the time of getting the horse power from a neighboring farm and returning the same, and some allowance must be made for delays that were unavoidable in work with which none of us were familiar.

There was no outward sign of any change going on within the silo. Only a temporary roof was over it for a time, and on one or two occasions it was left in such shape as to receive some rain. On December 15th the silo was opened. The ensilage was found to be nicely preserved. There was no mold next to the plank or sides worth mentioning, and there has not been one per cent of waste.

The thorough exclusion of the air is the secret of its preservation. It matters but little what materials are used for the silo—lumber, stone, or merely pits—if the air is only excluded the fodder will be preserved. Many farmers at the institutes during the winter have asked: "How do you get the ensilage from the silo?" and so I refer to it here. The stones were thrown back from five of the plank next to the basement door, the plank removed, and this section was cut down with a hay knife and taken out with a four-tined fork and placed in baskets to be taken to the stable. After this section had been disposed of the process was repeated, only taking off the cover as needed (another advantage in weighing in this way). The process is similar to cutting down a hay-mow.

Excavation.....	\$10.00
Fifty-six per cent of stone, at 75¢ a perch.....	42.00
Laying stone, at 50 cents a perch.....	32.00
Ten barrels lime, at \$1.10.....	11.00
Sand.....	3.40
Four barrels cement, at \$1.45.....	5.80
Grouting bottom, cementing sides, etc.....	9.00
Doors and frames above.....	5.00
Plank for covering silo.....	6.00
	\$131.20

CORN FODDER GROWN FOR ENSILAGE.

The land upon which the fodder corn grew is a sandy loam—sand predominating. It had grown a corn crop the previous year, and was clean, but not sufficiently fertilized to produce a large crop. It was put in good condition to receive the seed, and drills marked three and one-half feet apart. June 11th the plot of 1½ acres was planted with the Hathaway dent corn—the variety grown upon the farm for some years. Corn was dropped in the drills and covered by hand, at the rate of one and a half bushels to the acre. I think less seed would have given a larger yield, as it was too thick to make a large growth. The corn came up well and grew very rapidly, receiving three cultivations, and being kept free from weeds. In August the severe drought began to tell upon its growth—the leaves and some of the stalks turning yellow, occasioned by the dry weather and the crowded state of the plants. But few ears formed. I quote from our field notes: July 21st—The ensilage corn is rolling considerably. July 28th—The ensilage corn has been at a stand-still for a week, on account of the extreme dry weather. August 8th—The ensilage corn has been shortened a good deal by the dry weather. August 18th—Continued rains. The ensilage corn, though cut short, seems to be making some growth at present. August 26th—The ensilage corn is again nearly at a stand still, owing to the dry weather. That the dry weather shortened the crop was plainly evident.

We began cutting the corn and filling the silo on Monday, Sept. 13th. The most of the stalks were green and full of juice at this time. On some parts of the plot some stalks were browned and the lower leaves dried, but to no great extent. A two-horse tread-power and our ordinary stalk-cutter, made at Fulton, N. Y., were used. A one-horse cart, and a double team and wagon drew the corn to the silo, which was only a few rods distant. The work was mainly done by students, who only work three hours in the afternoon, and so no full day's work was performed. On Wednesday, the 15th, it rained, and the cut fodder was somewhat wet, and some corn was cut while the water was dripping from it. On Thursday, the 16th, we finished the cutting. The corn, cut in pieces about one-half inch in length, was run directly to a

silo, where it was spread and tramped down as compactly as possible. Nothing was mixed with the fodder, and no other crop but corn was put in the silo. We cut at the rate of two tons an hour, I think, and we found the tread-power to answer a very good purpose. With a large machine more power would be needed, but twenty tons a day works it up quite as rapidly as most farmers will desire. Farmers will, I think, find any good power-cutter will do as well, perhaps, as some of the more recently patented machines known as ensilage cutters. The stalks were not weighed when put in, but we have weighed the ensilage as it was taken from the silo, and it weighs out 40,000 pounds, in round numbers, or between twelve and eleven tons to the acre. This yield is a very fair one, when the condition of the land and the season are taken into account; but I have no doubt that it might be trebled, perhaps more, under the most favorable conditions.

COVERING THE SILO.

The ensilage having been carefully leveled, so that the pressure should be equal, the planks, two inches thick, and eight inches wide, were nicely fitted as the covering proceeded, care being taken that there should be no danger of binding at the ends, as the settling continued. It was then weighted immediately with stones, at the rate of nine hundred pounds to the square yard.

Various means for securing the desired pressure for the ensilage have been suggested, but it seems quite probable that weights of stone, wood, bags of grain, or boxes of earth will be found after all most desirable, as such pressure is constant and needs no watching, while a screw-power, neglected or forgotten, will be quite likely to result in failure. The labor of putting on the stones and taking them off is no great item in the account. The stones we used had to be drawn a short distance, and three boys with a one-horse cart weighted the silo in four hours.

COST OF RAISING CORN AND PUTTING IN SILO.

Plowing and harrowing 1½ acres.....	\$3.00
Marking and planting.....	2.74
The bushes seed, at 20 cents a bushel.....	3.00
Cultivating three times.....	2.50
300 hours student labor, at 8 cents.....	24.00
2½ hours team labor, at one shilling.....	4.00
15 hours men's labor, at one shilling.....	1.88
	\$41.81

termine the comparative value of ensilage: as a cattle food, for the production of milk, flesh, and growth.

With this aim in view, the ensilage was fed in place of roots, and as a full or partial substitute for the dry, rough feeds.

Animals Chosen for the Experiment.

Four lots of cattle were selected from the college herd Dec. 1, 1881.

Lot I consisted of two milk cows, Ayrshire and Shorthorn, that had dropped first calves early in September of the same year.

Lot II was composed of two steers, Devon and Ayrshire, of nearly the same age and weight. The Devon was in rather better flesh than the other.

Lot III had two large, dry cows, Shorthorns, very nearly alike as to weight, time of calving, condition of flesh, and feeding qualities.

Lot IV was made up of three bull calves, all Shorthorns, which were very even as to weight, condition of flesh, and age.

Previous Treatment of the Animals.

Owing to the late growth of grass and the mild fall weather, the cows and steers had been turned out to pasture during the day and stabled only at night. They had been fed dry cut cornstalks once and meal twice daily. The three bull calves had been kept in stalls for a month previous to the experiment, and had received a hay and meal ration.

During the month of November all the animals selected for the experiment had lost weight, except the bull calf "No. 9" of the table, and he had gained nothing. Nos. 3, 5 and 6 of the table were in good flesh—not fat—and the rest were in thin condition, though in rather thin flesh.

Treatment During the Experiment.

During the experiment all the animals were fed regularly three times daily at 6:30 A. M., noon, and 5 P. M. They were watered in the stall at 8 A. M., and again just before feeding at night. The milking was done just before the regular morning and evening feedings.

The animals were well groomed daily with card and brush. Every day, from 10 A. M. till noon, the cattle were turned into yards sheltered on the north and west. While in the yard they again had access to water. At this time also, each day, the stalls were well cleaned and littered. The cattle were salted twice each week. They were weighed on putting up, and regularly each week thereafter at 4 P. M.

The cattle were attended throughout the experiment by one man, and special pains were taken to secure regularity and uniformity in everything pertaining to the feed and care of the animals.

Feed and Feeding Notes.

The rough feed was all cut into one-fourth to one-half inch lengths by a power cutter. The cornstalks were not very good, owing to bad weather while curing. The hay (timothy and clover, one-half each) and oat straw were of first quality. The meal, fed to the cows and steers, had 14 parts corn meal, 4 parts oat meal, and 9 parts wheat bran, by weight. That fed to the bull calves, and also to the Ayrshire steer, during the last six weeks of the experiment, was composed of one-third oat meal, one-third corn meal, and one-third wheat bran, by weight.

Exact notes of the feed given to each animal were kept, and any feed left in the mangers was also carefully noted and removed before the next feeding.

An Iowa Farmer's Opinion of Fodder Crops.

A correspondent of the Iowa Homestead writes as follows:

"Many farmers feed but little grain except to work horses and to fatten hogs. Whether this is good or bad policy depends upon the extent of the supply and other circumstances. But in case no grain is used we ought to have a variety of good fodder and plenty of it. For our main dependence, if we have a good supply of timothy hay, we need look no farther, except for a change something else may be desirable. But in case of an emergency, or a short supply of hay, we have to resort to the other kinds of roughness."

"First in order is corn fodder, but as this is usually managed I consider it a first-class nuisance. I have raised more or less fodder every season for fifteen years. My practice is to use a piece of clean, rich land, usually very stubble, and about the middle of July plow it shallow and in each second or third furrow drill corn thickly, about two bushels per acre, then harrow off smoothly, seldom give any cultivation, and cut up about the first of frost. Grown thus thickly it will be fine enough to be fed in a manger and will be eaten up as clean as hay. For the usual practice of cutting up the main crop of corn, husking it in the mud, and feeding from the ground, I don't want any of that in mine. Drill corn expressly for fodder, sow it in the corn field and pasture your stalks every time. This leaves a large portion of your manure and all your stalks in the field where they are needed."

The main objection to corn fodder is that if cut as green as desirable, the stalks being full of rich sap will not keep well. I obviate this by taking some pains in putting up shocks. I drive a couple of stakes in the ground, on which I nail a rail for a support, since the stalks are not stiff enough to support themselves, then a shock built around this, with an opening through the center for ventilation, and well bound, can be made large enough to keep well until hauled out to feed. I also feed much green fodder, mostly sweet corn, to milk cows during August and all the fall. Clover hay I would use only as a substitute for something better. The best office of clover is to fertilize land, furnish pasture for stock hogs, calves, and late pasture when drouth shortens other grass crops. We next have millet and Hungarian to fall back on. I am now feeding the German millet and my cattle like it better than anything else. I have a great objection, however, to these two crops. From being grown on mellow ground this kind of hay becomes very dusty. If raked by a horse, even in dry weather, some lump gets in, and, in case of rain, the hay is disagreeably dirty. I have a stock of Hungarian now which smokes while being disturbed, equal to a

Shipping Poultry.

Some fowls receive at home attention almost equal to that bestowed upon a child (of course with limitations). A favorite fowl that stands a chance of scoring high and winning is cared for tenderly. No drafts of air are allowed to come upon it; no injurious food is given it; no dog, cat, or other insidious foe is allowed to molest or frighten it; it is kept clean, warm, well fed, and in short perfectly comfortable. But curiously enough the very birds that are well treated while being raised to maturity are sometimes shipped very carelessly, and started away on long journeys ill provided, or not at all, with food and drink. The negligence is culpable; and, moreover, foolish, for thereby the greatest injury is done to the fowls themselves; and if the fact that the animals will suffer painfully has no influence upon the owner, it would seem as if the selfish wish to avoid loss would have some weight. For a prolonged absence in an animal feeding so frequently as the domestic fowl, and subject to such extensive drafts on their system, is often followed by irremediable injury to the constitution. We would avoid breeding from a bird that we knew had been thus treated, just as we would avoid one that had any great defect, such as a bad form, producing weakly chicks, and the like. The evils of underfeeding are well enough understood; in this case, however, the difficulty is increased by the suddenness of the shock, the fowl not having time to accustom itself to it. What is said of feeding is also true of the supply of water.

The fowl becomes weakened and thus more liable to catch cold, opportunities for which are not wanting. Being in this attenuated condition, it is easily frightened, becomes wild, and consequently in very poor condition, if not before

the exhibition, certainly before it is returned to its home.

If a fowl comes to hand that has been deprived of food and drink for a long time, we must remember that the powers of the system are lowered, and that the ability to digest is diminished, together with the general nervous power, and that from the lack of material the amount of gastric juice is also lessened. We must, therefore, for a time limit the supply both of solids and liquids, and the food first given should be quite wet. "Sopped bread" is recommended, and this is probably as good as anything else. We would also indorse the recommendation to soften the bread in ale, if there appears to be unusual depression. This care ought to be extended during, at least, a couple of days.—Poultry Yard.

FARMERS trying to make a living off worn-out lands must sell their calves and pigs, and sell fat oxen and hogs instead, and they will soon see an improvement in the fertility of their land and in their bank account.

It is said that the large increase of acreage in onion culture in Ohio has had the effect, in such cases, and a large portion of the onion crop in that State is in the barn awaiting a rise; that the demand is weak and the situation discouraging.

Do not put lime in the manure heap for it destroys the gas of ammonia, and by compelling it to take the gaseous form drives it off. Lime will rot manure very quickly and do its work well, but it will be at the expense of a loss of nitrogen, which is an ingredient in ammonia.

L. S. COFFIN, of Iowa, says: "The Fat Stock Show teaches this lesson most emphatically; that the profit in steer raising is all in the first two years. We hope the management will hereafter offer no premiums for fat stock over three years of age, if they do over thirty months. Early maturity should be encouraged."

J. M. STAHL, in the Ohio Farmer: "We consider the raising of hogs a business subject to more risks than the raising of horses, cattle, or sheep; yet, rightly managed, a business that yields a good profit. But to make it profitable year after year requires great care, good judgment, and the best breeds and methods."

There is a sure way by which fat turkeys may be kept crisp and fresh all winter. Prepare a bin or box large enough to hold as many as may be required for use, put in the bottom a layer of fine earth, then a layer of turkeys, alternating till all are in, then cover slightly with fine earth, and the turkeys will come out as fresh as when pulled, even if not taken out until spring.

The general opinion in regard to the American Agricultural Association, which met in Chicago last December, seems to be that whatever the ends and aims of the "Association," agriculture is not one of them. The principal business seemed the getting of new members at \$3 per capita; the farmers thought it was a political convention, and the politicians vowed it was "simon pure" agricultural in its principles.

A correspondent of the Iowa Homestead says that the exhibit of potatoes at the Iowa State Fair of 1882 was larger than ever before, but that the committee to which was entrusted the duty of making awards, were so ignorant of the sorts presented that an Early Rose drew first prize for Chicago Market, and the White Star masqueraded as Burbank's Seedling. He says this was the only State fair he ever knew where the same basket of potatoes was exhibited under three different names, and took two premiums under different names.

A very slight dressing of manure, ashes, or even rich soil on grass lands will thicken the sod wonderfully. A year later the whole may be turned under with much better assurance of a profitable result than if the manure was applied just before the plowing. There is scarcely any chance for loss in applying manure on grass lands at any season of the year. The leaves and grass roots retain the fertilizing particles, and they will not be washed away on side hills as they will if spread on a plowed surface. In the experiment made by Dr. Sturtevant the past summer, he finds that the drainage is much less from a plot covered with grass than from one left bare and cultivated.

Indulgent parents who allow their children to eat heartily of high-seasoned food, rich pies, cake, etc., will have to use Hop Bitters to prevent indigestion, sleepless nights, sickness, pain, and, perhaps death. No family is safe without them in the house.

THE BEST KIDNEY AND LIVER MEDICINE NEVER KNOWN TO FAIL.

"I had suffered twenty years with severe disease of the kidneys; before using Hunt's Remedy two days I was relieved, and am now well."

"My physician thought that I was paralyzed on one side. I was terribly afflicted with rheumatism from 1859 to 1880. I was cured by Hunt's Remedy."

"My doctor pronounced my case Bright's Disease, and told me that I could live only forty-eight hours. I then took Hunt's Remedy and was speedily cured."

"Having suffered twenty years with kidney disease, and employed various physicians without being relieved, I was cured by Hunt's Remedy."

"I have been greatly benefited by the use of Hunt's Remedy. For diseases of the kidneys and urinary organs there is nothing superior."

"I can testify to the virtue of Hunt's Remedy in kidney disease from actual trial, having been much benefited thereby."

"I was unable to arise from bed from an attack of kidney disease. I tried all the remedies I could find, but was finally completely cured by using Hunt's Remedy."

"I have suffered chronic case Bright's Disease, and after using Hunt's Remedy two days, I was enabled to resume business."

"One trial will convince you. For sale by all Druggists. Send for pamphlet to HUNT'S REMEDY Co., Providence, R. I.

Prices, 75 cents and \$1.25.

WELLS, RICHARDSON & CO'S IMPROVED BUTTER COLOR.

A NEW DISCOVERY.

"For several years we have furnished the Dairyman of America with an excellent artificial color for butter; so meritorious that it met with great success everywhere, receiving the highest and only prizes at both International and State Fairs."

"But by patient and scientific chemical research we have improved in several points, and now offer this new color as the best in the world. It will Not Turn Rancid. It is the Strongest, Brightest and Cheapest Color Made."

"And, while prepared in oil, is so compounded that it is impossible for it to become rancid. Beware of cheap imitations, and of all other oil colors, for they are liable to become rancid and spoil the butter."

"If you cannot get the 'Improved' write us to know where and how to get it without expense."

WELLS, RICHARDSON & CO., Burlington, Vt.

NEW (1889) Chromo Cards, 24 like, with name, 10c., postpaid. Geo. I. Reed & Co., Nassau, N. Y.

THE MICHIGAN FARMER.

THE MICHIGAN FARMER.

THE MICHIGAN FARMER.

THE MICHIGAN FARMER.

THE MICHIGAN FARMER.

THE MICHIGAN FARMER.

THE MICHIGAN FARMER.

THE MICHIGAN FARMER.

THE MICHIGAN FARMER.

THE MICHIGAN FARMER.

THE MICHIGAN FARMER.

THE MICHIGAN FARMER.

NEW ADVERTISEMENTS.

SICKHEADACHE. For the relief and cure of this distressing affliction, see Simmons' Liver Regulator.

MALARIA. Fever may be avoided by taking a dose of Simmons' Liver Regulator to keep the liver in healthy action.

CONSTIPATION. Should not be regarded as a trifling ailment. Nature demands the regularity of the bowels. Therefore assist Nature by taking Simmons' Liver Regulator; it is so mild and effective.

BILIOUSNESS. One or two tablespoonfuls will relieve all the troubles incident to biliousness, such as Nausea, Dizziness, Drowsiness, distress after eating, a bitter, bad taste in the mouth.

DYSPEPSIA. The Regulator will positively cure this dreadful disease. We assert emphatically what we know to be true.

COLIC. Children suffering with colic soon experience relief when Simmons' Liver Regulator is administered.

The Regulator restores the enfeebled digestion and enriches the impoverished blood.

"Take only the genuine, which always has on the wrapper the red T Trade Mark and signature of J. C. H. & CO., Lowell, Mass."

FOR SALE BY ALL DRUGGISTS.

KIDNEY-WORT. FOR THE PERMANENT CURE OF CONSTIPATION.

No other disease is so prevalent in this country as Constipation, and no remedy has ever been discovered that will cure it permanently. It is the cause of many diseases, and its removal is the first step towards health.

FILES. Plans for a very apt to be overlooked. The Regulator will positively cure this dreadful disease. We assert emphatically what we know to be

DIRECTORY.
OF
Michigan Breeders.

CATTLE, Shorthorns.

JAMES MOORE, Milford, Oakland Co., Mich., breeder of Shorthorn cattle. Stock for sale, both bulls and heifers, on reasonable terms. 38-69

H. H. HINDS, Stanton, Montcalm Co., breeder of Shorthorn cattle and American Merinos. 36-17-17

W. M. GRAHAM, Rochester, Oakland Co., Cattle for sale, either bulls or cows. 14-17-17

GEORGE W. STUART, Grand Blanc, Genesee Co., Mich., breeder of thoroughbred Shorthorn cattle, Registered Merino Sheep and Jersey and Red Swiss. Correspondence solicited. 34-17-17

W. C. WIXOM, Wixom, Mich., breeder of Shorthorns. Stock of Sharon, Lady Helen, and Avelly families. Stock for sale. All correspondence will receive prompt attention. 34-17-17

W. M. BALL, Hamburg, Livingston Co., breeder of Shorthorns, Principal families, Rosses of Sharon, Fvills and Young Mary; also breeder of Thoroughbred American Merinos and Poland-China Swine. 34-17-17

W. M. & ALEX. McPHERSON, Howell, Cotesworth and Mich., breeders of Shorthorn cattle and swine. 33-17

J. LESSTER, Jersey, Oakland County, Mich., breeder of Shorthorn cattle, Shropshire and Short Horns. 33-17

FRED. A. BEARD, "Clyde Valley Herd," Atkins, St. Clair Co., Mich., breeder of Shorthorn cattle. Stock for sale. Correspondence solicited. 33-17

JOHN MCKAY, Romeo, Macomb County, Mich., breeder of Shorthorn cattle. Young bulls and heifers for sale. 33-17

J. E. FISK & SON, Johnston, Barry County, Lincoln Merino Sheep, Registered American Shorthorn Cattle, Jersey and Jersey Red pigs and Plymouth Rock Chickens. P. O. Bedford, Chatham, Mich. 34-17

N. O. CLAFFE, Wixom, Oakland Co., breeder of Shorthorn cattle and Berkshire swine. Stock for sale. Write for prices. 34-17

W. E. BOWDEN, Delhi Mills, Washtenaw Co., Young stock for sale. Correspondence solicited. 34-17

Jerseys.

W. J. G. DEAN, Oaklawn Herd, Hanover, Mich., Stock of the Alpha and other noted strains. First prize in the American Jersey Cattle Club Register. First prize in the American Jersey Cattle Club Register. First prize in the American Jersey Cattle Club Register. 34-17

Holsteins.

HOLSTEIN CATTLE for sale, which I will terms. All wishing to see stock will arrive or call on OGDEN COLE, Rollin, Mich. 33-17

D. A. ROWLEY, breeder and dealer in Dutch Frolian (Holstein) Cattle and Registered Berkshire Pigs. Road China and Jersey Red of the Grand Trunk Depot, Mt. Clemens. 34-17

W. K. SEXTON, Howell, importer and breeder of Thoroughbred Holstein Cattle. Stock farm 10 miles south. 34-17

A. UNDERWOOD, Addison, Mich., breeder of Shorthorn and Holstein cattle. Stock for Sale. Correspondence solicited. 34-17

Devons.

J. B. BURDERS, Troy, Oakland Co., P. O. Cattle, bred and raised in the State of New York. Awarded seven prizes in the American Jersey Cattle Club Register. First prize in the American Jersey Cattle Club Register. First prize in the American Jersey Cattle Club Register. 34-17

Gallovays.

D. B. CARUS, Essex, Clinton Co., Mich., W. St. Johns P. O., breeder of Gallovay Cattle and American Merino Sheep and Essex Hogs. Correspondence solicited. 34-17

Horefords.

BROOK FARM HEEFORDS, Davis Clark, Proprietor, Lapeer, Correspondence Solicited. 34-17

SHEEP, Merinos.

S. B. HAMMOND, breeder of Registered Merino Sheep, proprietor of "Prairie Home" all times. 34-17

A. D. DIEHL, Milford, Mich., breeder of registered and unregistered American Merinos. Stock for sale on very reasonable terms. Correspondence solicited. 33-17

J. & E. W. HARDY, Oscoda Center, Livingston Co., breeders of Registered Merino Sheep, tracing to best Vermont flocks. Stock for sale. Correspondence solicited. 34-17

J. H. THOMPSON, Grand Blanc, Michigan, breeder of Registered Merino Sheep and Jersey Red stock, descendants of most noted families of fine stock. Size, form and density of fleece a specialty. 34-17

C. M. FELLOWS, Manchester, Washtenaw Co., I keep on hand at all times a good stock of Registered Merino Sheep. Correspondence solicited in Vermont. Stock always for sale. 34-17

L. W. & O. BARNES, Byron, Washtenaw Co., Mich., breeders of Registered Merino Sheep and Poland-China Swine. A choice lot of young stock for sale at reasonable prices. Correspondence solicited. 34-17

FRED C. WOOD, Saline, Mich., breeder of Registered Merino Sheep. Young stock for Sale. Correspondence solicited. 34-17

WILL N. ADAMS, breeder of and dealer in Rams for sale. Correspondence solicited. 34-17

J. S. BARNER, Highland, Michigan, Oakland County, Mich., breeder of pure Suffolk and Hampshire Swine. A large herd of pure Suffolk and Hampshire Swine for sale at fair prices. 34-17

A. WOOD, Saline, Mich., breeder of thoroughbred Merino Sheep. A large stock constantly on hand. 34-17

J. EVARTS SMITH, Ypsilanti, breeder of thoroughbred Merino Sheep, registered in Vermont and Michigan. A large stock of pure Suffolk and Hampshire Swine for sale at fair prices. 34-17

DICKER BROS. & SHULTZ, Coldwater, Mich., breeders of Registered Merino Sheep. Young stock for sale. Correspondence solicited. 33-17

HOGS.—Berkshires & Suffolks.

RICHARDSON & REED, Jackson, breeders of and shippers of Chester White Swine. We breeders of Pure Berkshires and Suffolks for sale at reasonable prices. Satisfaction guaranteed. 34-17

A. CHANDLER, breeder of Shorthorns and Suffolk and Essex swine. Stock for Sale. Correspondence solicited. Jerome, Mich. 34-17

GEO. B. COLE, Lansing, Mich., breeder of Berkshire and Suffolk Swine. All Berkshire stock recorded. Correspondence solicited. 34-17

W. J. WONES, Richland, Kalamazoo County, breeder of pure bred Poland China Swine. My breeding stock all recorded in the Ohio and American Poultry Records. 34-17

IMPROVED BERKSHIRES of best strains of blood for sale by Hiram Walker & Sons, Walkerville, Ont. For particulars address CHARLES SWANN, Farm Walkerville, Ont. 34-17

W. W. TURBS, Delhi Mills, Washtenaw Co., Mich., breeder of pure Suffolk and Hampshire Swine. Choice Stock for sale. 34-17

F. VICKERY, Charlotte, Eaton County, Mich., breeder of Pure Berkshires and Suffolks. Choice stock for sale at all times. Send for Circular. 34-17

N. O. CLAFFE, Wixom, Mich., breeder of Shorthorn cattle and Berkshire swine. In 1881 eight first prizes were won at two fairs. Young boars fit for service for sale. Write for prices. 34-17

Chester Whites.

FRANK C. CREGO, Strickland, Dabola Co., Mich., has stock of all ages for sale. Pigs in pairs, not in pairs. Correspondence solicited. 34-17

A. SEARING, Lyons, Oakland Co., Mich., breeder and shipper of Chester White Swine, bred and raised in the State of New York. First prize in the American Jersey Cattle Club Register. First prize in the American Jersey Cattle Club Register. First prize in the American Jersey Cattle Club Register. 34-17

Poetry.

A SERMON IN RHYME.

If you have a friend worth loving,
Love him. Yes, and let him know
That you love him ere life's evening
Thine his love with sunset glow;
Why should good words ne'er be said
Of a friend—ill he be dead?

If you hear a song that thrills you,
Sing by all child of song,
Praise it. Do not let the seeker
Wait deserved praises long;
Why should one that thrills your heart
Lack that joy it may impart?

If you hear a prayer that moves you
By its humble, pleading tone,
Join it. Do not let the speaker
Bow before his God alone;
Why should not your brother share
The strength of "two or three" in prayer?

If you see the hot tears falling
From a loving brother's eyes,
Share them, and by sharing,
Own your kinship with the skies;
Why should any one be glad,
When his brother's heart is sad?

If a silver laugh goes rippling
Through the sunshine on his face,
Share it. 'Tis the wise man's saying,
For both grief and joy a place;
There's health and goodness in the mirth
In which an honest laugh has birth.

If your work is made more easy
By a friendly helping hand,
Say so. Speak out brave and truly,
Ere the darkness veils the land,
Should a brother workman dear
Fail for a word of cheer?

Scatter thus your seed of kindness,
All enriching as you go—
Leave them, trust the Harvest-Giver,
He will make each seed to grow.
So, smile his happy end,
Your life shall never lack a friend.

—Amherst Record.

DECEMBER 31.

There goes old Gaffer over the hill;
Tidying and old and gray,
He walks the wide world's waltz to fill,
And he carries good spoil away.

Into his bag he popped a king,
After him, went a friar,
Many a lady with gay gold ring,
Many a knight and squire.

My little darling, young and fair,
Sat by the door and spun;
He caught her feet by her silken hair,
Before the child could run.

He stole my love love far away,
He stole the dog at my door,
The wicked old Gaffer, thieving and gray,
He'll never come by any more.

He stole the foinas out of my purse,
The sunshine out of mine eyes;
He stole my roses, and what is worse,
This wicked old Gaffer told lies.

He promised fair as he came by,
But he laughed as he slipped away;
For his every promise turned out a lie,
But his lies are over today.

Good-bye, old Gaffer! You'll come no more,
You've done your worst by me;
The next gray robber will pass my door,
There's nothing to steal or to see.

—Rose Terry Cooke.

WILL.

There is no chance, no destiny, no fate,
Can circumvent or hinder, or control
The firm resolve of a determined soul.
Oaths count for nothing; will alone is great.
All things give way before it, soon or late,
What obstacle can stay the mighty force
Of the sea-scooping orb in its course,
Or cause the ascending orb of day to wait!

Each will-born soul must win what it deserves,
Let the born soul of luck. The fortunate
Is he whose earnest purpose never swerves,
Whose slightest action or inaction serves
The one great aim.

Why, even Death stands still
And waits an hour sometimes for such a will.

—Ella Wheeler.

Miscellaneous.

A CABINET SECRET.

I made Robert Headley's acquaintance in the auction-room. I am an idle man, and having plenty of time, and occasionally a few pounds to spare, have gradually contracted a love for bric-a-brac, the pursuit of which enables me to kill a good many weary hours and to hoard up, in the shape of old china, money which otherwise would be frittered away on equally useless but less valuable objects.

Headley and I were among the most regular attendants at Christie's, Sotheby's, and other auction-rooms, and, as during the season of the sales we met somewhere almost daily, our mutual taste soon led to an acquaintance.

Headley was a tall, gentlemanly man of about thirty-eight, and evidently had studied the ceramic art deeply. He put me right on several little matters, and once or twice saved me from buying spurious productions. As the true collector loves nothing better than to show his pet objects to another who understands and appreciates their beauties, it was not long before Headley asked me to pay him a visit for that purpose.

"Come early," he said; "then we shall have time to go through the cabinets by daylight. Afterwards I will give you some dinner."

Headley's house was in a quiet square in a good, if not the most fashionable, part of London. I found my host delighted to see me, and panting to show his treasures. He was a genuine member of that species known as "the enthusiastic collector," whose passion for accumulating rarities amounts to a mania; and I am bound to say that his collection was one to be proud of. I should tire the reader, ignorant of those delicate distinctive subtleties dear to a collector's heart, were I to expatiate upon the beauties of his old Dresden, Sevres, Wedgwood, and Bentley, rose-backed Nan-kin, blue-and-white hawthorn pattern, &c. I admired greatly, and envied more.

The collections were arranged with great taste in suitable cabinets, and among the many choice specimens I think the one that struck me most was a magnificent old Chelsea tea set. It occupied the centre of one of the cabinets, with articles of lesser value ranged around it, as though paying homage to its superior worth. Leaving out of the question the beautiful blue and white decoration, the reticulated gilding and the artistic painting, the set was very valuable from the fact that it was perfect.

Headley seemed pleased at the admiration I expressed, and said with a smile: "You, a collector, may not be surprised at hearing that I nearly bartered my happiness to make that set perfect."

I laughed, thinking he was joking, and replied: "I don't think I would go quite as far as that; but I am sure my happiness would be greater if I owned it."

"So would any man's be. Look at the painting, the gilding, the shape, the color. Feel the texture of it," he added, taking the teapot from its velvet-lined nest and fondly caressing it with his long white fingers; "you or I could tell in the dark it was Chelsea by the softness of the paste."

"Where did you get it from?"

"I had the teapot, sugar-basin, two cups and saucers, first. They belonged to my mother, and, as I told you, I was nearly paying too dearly for the rest of it. But I will tell you all about it after dinner if you would care to hear the story."

The summer afternoon passed very pleasantly among the old china, and at seven o'clock we were summoned to the dinner-table.

I was presented to Mrs. Headley, a charming young woman of about twenty-eight. She gave me a cordial welcome, and the little dinner went merrily enough. We were served on old Oriental plates; the spoons and salt-cellars were of the coveted Queen Anne period; and the glass was rare old Venetian. Headley certainly had refined and expensive tastes, and, it seemed, plenty of means wherewith to gratify them.

When Mrs. Headley rose she begged us, pleasantly, not to linger too long over the wine, as she was all alone.

"Your husband has promised me the history of the Chelsea set," I said, "but under the circumstances, I shall ask him to be as brief as possible."

"If he does tell you, Mr. Burke," she said, laughing, "I shall never, never forgive him, and it would be impossible for me to tell you in the face again."

"My dear," said Headley, "our friend Burke is a collector himself, and can sympathize with my weakness. I should never think of relating it, unless it were a kindred spirit who will fully enter into my feelings."

After closing the door upon my fair hostess, I refilled my beautiful tinted glass with Lafitte, and waited, with some curiosity, for the promised recital.

Headley commenced:

"Of course, it is all a joke now, and I can well afford to laugh at it, but when the affair I am going to tell you of happened it was serious enough. The portion of the Chelsea set I owned at first belonged to my mother, she inherited from her father, and there its history is lost. When I was first seized with the passion for collecting, it naturally formed the nucleus of my cabinet. Every one admired it, and envied me the possession of it. One day—it was after I had formed a decent collection and was getting well known as a buyer—Wharton, the dealer, called upon me to show me a few things he had picked up in the country. I drew his attention to my Chelsea; he examined it closely, and said: 'Very strange; I saw the rest of that service a few days ago.' I asked him where, and he told me it belonged to a lady living at Shepherd Bush. Was it for sale? Certainly not, or he would not have told me about it until he had secured it. He had offered to give her a large sum for it, but nothing would induce her to part with it. It was, like mine, a family relic, and as the owner was in no want of money, there did not seem to be any chance of persuading her to surrender it. Her name, he informed me, was Miss Crofton; her residence No. 142 College Road, Shepherd's Bush."

"Now, Burke, you will, I know, sympathize with me when I say that, having discovered that the rest of that exquisite set was in existence, I felt that life was almost intolerable without it, and that at any sacrifice it must be mine. On that point my mind was at once made up."

"The first thing was to see the china, and satisfy myself that Wharton had made no mistake; so the next day I called upon Miss Crofton. I found her a pleasant, polite lady of about fifty, and she presented the appearance of a spinster whose circumstances were very comfortable. It has always seemed to me that anything to do with china makes the whole world kin, and when I explained the object of my call, Miss Crofton refused to listen to any apology, but at once led me to the cabinet holding the treasure. My informant had told the simple truth. I had the teapot, two cups and saucers, and the sugar-basin, while Miss Crofton was the fortunate owner of the cream-jug, four cups and saucers, and the two dishes. And as, with dazzled eyes, I gazed on her portion of that exquisite service, I felt as though a sacred duty had devolved upon me to reunite the long-separated ceramic family; and I knew I should find little happiness until all the beautiful members of it reposed safely in my possession."

"Miss Crofton and I soon became good friends, especially when upon comparing notes and tracing back the pedigree of my Chelsea, we decided that at some time my mother's and her father's families must have been closely allied. When we had established this fact to our satisfaction, I ventured to hint as delicately as I could, my wish to possess the china; then, as she took no notice of my hints, I was compelled at last to ask her point-blank, if she would sell it to me, fixing any price in reason she chose to. I found, as Wharton predicted, that the good lady was obdurate, and there I sat for an hour, with the coveted articles almost within grasp, yet as far off as the gates of heaven."

"I did not, of course, despair entirely. 'I must manoeuvre,' I thought. 'I will have it in time, by fair means or foul. I will make myself very agreeable to her; I will show her attentions. Some day I may be able to render her a service, and her heart may open with gratitude, and I shall compass my desire.' To-day I could do no more, so I bade my new-found relative, as I cunningly called her, an affectionate good-bye, asking permission to call on her again."

"I shall be glad to see you at any time, Mr. Headley," she said, "but we shall never have any chit-chat together, so you are fairly warned."

"I went home feeling very mournful, and for the rest of that day the four cups and saucers, the cream-jug, and the two dishes were dancing about before my eyes. I sat down for an hour or more with my own portion before me. How meagre it looked now! I took the pieces out and rearranged the cabinet, leaving blank spaces for those I coveted. I pictured the lovely appearance the set would present when the whole of it was in my hands."

"I went to rest quite sorrowful, and the cabinet, which only the morning before seemed so well filled, was now empty, or nearly empty, in my eyes. It is a small thing to say that I believed I dreamt of Miss Crofton and her china the whole night. My honesty vanished as my eyes closed. I stole that china at least a dozen times. I secreted it in the most extraordinary places. I buried it for safety and to avoid detection, but the four cups seemed endowed with life, and as fast as I covered them up well with earth would pop up in unexpected places. I committed other crimes for the sake of that china. I deliberately murdered the unfortunate spinster, and packed the articles which had urged me to crime most carefully in a bag. Then the hue and cry was raised, and I knew that men were pursuing me, but I dare not venture to run lest I should break those fragile things for which I had endangered my soul. It seemed to me infinitely preferable to swing on the gallows than to find one of those exquisite cups in atoms. Even when the morning came and I found that the events of the night were only dreams, my state was not very much happier. I could not bear to look at my cabinet. Something was wanting there, and until the void I had created was properly filled I felt I could find no pleasure in my former pursuits."

"You, although a collector, may think I am joking, but I assure I am not. I hungered, I craved for that china, and felt that, were it denied me, my dreams might some day almost come true."

"After the interval of a few days I thought I might venture to call upon Miss Crofton once more. She received me kindly, told me she was flattered by my paying her another visit so soon, and allowed me to handle the china again. I must have been dull company, too, for although I replied mechanically to her chit-chat, my eyes were ever turning to those cups and saucers, cream-jug, and two dishes. Miss Crofton could see the bent of my thoughts, for she said:

"It's no use, Mr. Headley, I will not sell them, and I love them too much to give them away."

"As she spoke a thought struck me. I would take her to see the tea-pot, sugar-basin, and the other cups and saucers, mourning as it were for their long lost brethren. So I concealed my vexation, and, making an effort to smile, said:

"I am only admiring, Miss Crofton. But I should be so pleased if you would honor me by calling and looking at my little collection. If so, I will send the carriage for you to-morrow."

"She accepted my invitation, and the next day came to my house. I took care to have a choice little repast prepared, of such things as middle-aged spinsters love, and after we discussed it I led her to the room which held my treasures. All the cabinets save one were open to her view, but that one I had covered with a dark cloth. After she had seen the contents of the others, I led her before this one, and in a theatrical manner, with a beating heart, lifted the veil and revealed my teapot, sugar-basin, cups and saucers, looking beautiful, but sorrowful, with the vacant spaces around them. I said nothing, thinking this mute appeal to her better feeling would do more than any words of mine. She saw the plot at a glance and laughed long and loud, saying, as her merriment subsided:

"So, Mr. Headley, this is the meaning of your hospitality: you expect me to pay for my dinner with the china?"

"I protested it was only a little hint to show her how very anxious I was to possess the remainder of the set, and then I told her, seriously, how necessary it was to my happiness and peace of mind to see those void spaces filled."

"No appeal of mine would soften her, and the four cups and saucers, the cream-jug, and the two dishes seemed as far away as ever. At last she said decisively:

"As you are so bent upon it, I will bequeath the china to you."

"And I may have to wait twenty years for it, I said sulkily, forgetting, in my mortification, not only politeness, but the affection I had expressed for my new-found relative."

"A good deal longer, I hope," she replied. "But as you are so anxious, why not pack up what you have and let me take it back with me? You can see it all in my cabinet whenever you like; and I dare say its being there will give me the pleasure of your company more often."

"But this plan did not suit me at all; and finding that my device had failed utterly, I was obliged to conduct my visitor to her home in a frame of mind not the sweetest."

"A week went by, but, try how I would, I could not get that cursed china out of my head, or resign myself to the disappointment. I found myself growing worse instead of better, and, as I fancied my health was beginning to suffer, I determined to run down to Brighton in the hope of distraction. The weather was fine; I met several pleasant friends there; and after a day or two began to think that in time I might conquer the absurd craving for which I had expressed for my new-found relative."

"I really think the greatest feeling of pleasure I had known for many days was to awake and find it was only a dream."

"I hurried back to town the same day. I felt that I could endure the uncertainty, the anxiety, no longer; and that to obtain my desire, any sacrifice I could make must

be made; so—don't laugh too much—I was resolved upon my return to ask Miss Crofton to become Mrs. Headley; and then upon the day of our marriage the severed set would be united. True, she must be somewhere about fifty, while I was just thirty; but from what I had seen of her I believed she was a very worthy woman; and, anyway, the china would be mine."

"You will scarcely credit it, but I carried out my resolution. Two days later I was at the fair spinster's side beseeching her to be my wife. I could not bring myself to profess a sudden passion for her, but I told her I was tired of living alone, and asked her to share my lot. I said I was well-to-do in the world, and promised to try and make her future life a happy one; and, as while speaking, my eyes rested on the four cups and saucers, the cream-jug, and the two dishes, I no doubt pleaded with a show of fervor which must have considerably puzzled the good lady. Like a sensible woman she expressed the greatest astonishment."

"Let me understand you clearly," she said. "Do you mean to say you are in love with me?"

"I will make you a good husband," I replied, thinking as I spoke how beautifully modeled the handle of the cream-jug was; "and I am sure you will never regret accepting my offer."

"But do you really love me?" she persisted, "an old woman as I am?"

"Seventeen hundred and sixty," I said mentally, "that must be about the date it was made;" and then I answered, looking at the four cups and saucers, and thinking of the vacant spaces at home; "I esteem and respect you highly, dear Miss Crofton, and I am sure you will make a solitary home cheerful."

"Suppose," said Miss Crofton acutely, "I were to take the poker and demolish that china; would you still repeat these flattering assurances of affection?"

"Oh, please don't!" I cried, starting up as the horrors of my dream came back to me.

"Mr. Headley," she said gravely, "you will pardon me for saying so, but sometimes I am afraid you are not quite right in the head. Is there any insanity in your family?"

"None at all," I replied.

"Neither your father, nor mother, nor any aunt nor uncle shown any tendency that way?"

"Not the slightest."

"Very well, you had better go home now, and think quietly over what you have said to me. If, to-morrow, you wish to repeat your words, you will find me at home all the afternoon."

"I left her, and as I stepped out congratulated myself that she had not accepted me at once."

"What a fool I am!" I said. "I shall always esteem that woman for not taking advantage of me. I will write and beg her pardon for my silly conduct and trust she will still continue my friend." And yet, in spite of these praiseworthy resolutions, the sight of the vacant spaces sent all my good sense to the winds; and, to shorten the tale, I went, deliberately, the next afternoon, to Shepherd's Bush, renewed my offer, and left the house formally betrothed to Miss Leslie Crofton. She, at least, behaved in a very sensible manner."

"You say you wish to marry me," she said, "and I am getting on in years now, so cannot injure to myself, refuse such an offer. I have inquired about you, and every one who knows you speaks in your favor. Still, you may regret your choice, so you shall have plenty of time for consideration. We will not be married for six months, at least."

"Although, after taking the first plunge, I should have been glad to go to the depths of my folly without delay, I felt the wisdom of her words, and acquiesced in this arrangement. Of course, with the new understanding between us, I saw both her and the china nearly every day; and as Miss Crofton was an extremely nice woman, I may say I grew quite to love her—as a mother—and, had fate not interposed, should doubtless have married her at the expiration of the time she named, and very probably should have been happy enough after a fashion. One thing was very much to my Leslie's credit; she indulged in no raptures, nor did she expect any from me. When we met, or parted, I imprinted a kiss upon her forehead, and that was all. She even interdicted the use of christian names between us, and stipulated that our engagement should be spoken of to no one. Another thing I found strange was that she was continually harping, in a good-tempered sort of way, upon the disparity of our ages, instead of endeavoring to make the difference as little as possible. In fact, she seemed to treat me more as a son than as a future husband."

"Feelings of delicacy prevented me from asking her to remove the Chelsea to my house before I had paid the price due for it, and I quite blushed with shame when one day she handed me the key of the cabinet, and with a meaning smile begged I would take charge of it to insure the safety of the articles I so highly prized."

"The course of our affection ran very smoothly for about three months. I had quite recovered my health, and I may say I was placidly happy. If, at times, while sitting with my elderly bride-elect, and hearing her, it may be, complain of some ailment which she candidly attributed to advancing years, I did feel a twinge of regret, I had only to turn to the four cups and saucers, the cream-jug, and the two dishes, and it vanished."

"But fate and Miss Crofton had other views for me, although I little suspected them."

"According to custom, one afternoon I paid my usual visit to my future spouse, and was surprised as I entered the house to hear the sound of a piano. I know something of music, so at once became aware that the instrument was played with great skill, and I wondered who the performer might be. I had not yet discovered that my Leslie possessed musical talent. The maid opened the door of the drawing-room, the music ceased, and I walked in and found myself face to face with one of the loveliest girls I had ever met. Perhaps the surprise, the contrast, when I saw her instead of the middle-aged lady I expected to greet, made this stran-

ger look even more charming. I could realize only at first a bright young face, with masses of light hair around it, turned to see who entered, and a well-molded figure, showing to great advantage as she sat before the piano. Her dress was of simple black, but well and becomingly made, and as she rose when I entered, I could see she was over middle height."

"Women always behave with less awkwardness than men in chance meetings; so while I stood still and stammered some words of apology, she advanced with perfect ease and said—

"Mr. Headley, I am sure! My aunt told me to expect you. She has gone out for a short time, but hoped you would wait until her return."

"I was only too pleased to accept the invitation so frankly given, and recovering my self-possession in a few minutes, I was in a full swing of chat with my Leslie's niece."

"I found her an unaffected girl, full of spirits, and looking forward to the pleasures of a stay in town."

"I suppose you will stay some time?" I asked. "Your presence will quite brighten Miss Crofton's house."

"I shall stay as long as ever my aunt will keep me," she replied. "Isn't she a dear old soul, Mr. Headley?"

"I winced, and began to realize that my situation was a painful one."

"She is so antiquated," she continued, "and yet so romantic in many things."

"I felt more foolish than ever, and for the sake of saying something remarked: 'I wonder she did not tell me you were coming. I suppose she meant to surprise me.'

"I suppose so. But I assure you she has talked to me a great deal about you, Mr. Headley. You appear to be great friends. Quite a flirtation, I tell her."

"Colored up by my ears, but managed to say:

"Then I conclude her report of me has been favorable."

"I shan't betray her confidence, Mr. Headley; and, anyway, it would have no weight with me, as I prefer to form my own opinion."

"As I felt we were getting on delicate ground, I begged her to resume the music my coming had cut short."

"She played a piece of Chopin's with great feeling and brilliancy, and then, at my request, sang a couple of ballads. Her voice was sweet and well trained—altogether she was a very charming niece-to-be."

"Do you play or sing?" she asked.

"Neither, unfortunately. I am only an indifferent critic, who understands music only enough to praise when pleased."

"Ah, I forgot; you are a great china collector."

"And as she spoke it struck me that this was the first time I had ever been inside this room and forgotten to look and assure myself of the safety and well-being of the cups, saucers, cream-jug and dishes."

"And, as the thought of the china brought other thoughts in its train, I felt that I would give a great deal to know whether Miss Crofton had told her niece everything. Fervently I hoped that she had not done so, as I knew instinctively I should cut a very sorry figure in a young girl's eyes."

"During my meditation Leslie returned, and instead of appearing jealous and annoyed at the capital understanding between the fair niece and future uncle, smiled and said:

"Shall I introduce you young people, or have you dispensed with that ceremony?"

"Your niece has the advantage of me in knowing my name," I replied.

"Mr. Robert Headley, let me present you to Miss Ethel Crofton, my favorite niece," said Leslie, with the politeness of the old school.

"After that unnecessary ceremony I shall go and dress for dinner," said Miss Ethel Crofton.

"I closed the door after her, and turned to greet her aunt with the accustomed salute. Perhaps from the same reason that the china had lost its charm to-day I found that semi-maternal affection was scarcely satisfying enough, and could not help thinking my future bride looked very aged."

"Robert," she said—it was, I believe, the first time she had used my Christian name—"I should much prefer that Ethel should hear nothing of our engagement at present. She is young and giddy, and might not look upon it in the right light."

"I promised secrecy with a joy I could scarcely conceal. At any rate, Ethel knew nothing about it as yet."

"I dined that evening with the ladies. Miss Crofton did the honors in a dress of such antiquated design and material that Ethel openly rallied her upon it. She herself was beautiful in a pale blue silk, and I was so struck by her fair young bright face, her pleasant natural manner, that before the evening was half spent I had fully realized what an ass I had made of myself."

"My visits to Shepherd's Bush for the next few days were as frequent as the most exacting fiancée could have expected; but I am afraid that had my Leslie been of a jealous or suspicious nature she would not have derived the pleasure from them she appeared to feel. I sat no longer in the chair commanding the best view of the cabinet that enshrined the treasures for which I contemplated sacrificing myself and my affections. I was ever by Ethel's side; at the piano, turning the leaves of the music; reading my favorite poems to her; holding her crevices, or winding wool for her. Considering the tender relations between Miss Crofton and myself, I must own that my behavior toward her unsuspecting niece was disgraceful. Indeed, had Leslie thought fit to pour a storm of reproach upon me, and order me to quit her presence, she would have been fully justified. However, she did nothing of the kind, but sat in her favorite corner knitting, and apparently paying no attention to the flirtation, or something more serious, which was proceeding under her very eyes."

"Soon matters reached a climax. I could no longer deceive myself. I was hopelessly in love with Ethel Crofton, and I felt bound in honor to inform her aunt,

and to throw myself on the fair spinster's mercy before I made the avowal of my love to Ethel."

"I found Leslie alone one day, so I took the little key from my waistcoat pocket and handed it to her."

"And what is this for, Robert?" she asked gravely.

"In a shamefaced manner I said: 'I can't marry you—I love Ethel.'"

"Oh, Robert—Robert!" said Miss Crofton, putting her handkerchief to her eyes; "what can I say to you? Only a month ago I was indispensable to your future happiness, and yet you forsake me for the first young face you see; and she appeared to sob bitterly."

"It was the china," I expostulated.

"I see; and now you think you can have Ethel and the china, too, and prefer a young bride and old china, to an old bride and old china. Faithless man!"

"I lost my temper utterly, and I am sorry to say my politeness followed it."

"Hang the china!" I cried, "give me Ethel, and she can smash it all if she likes. I don't care."

"Women, I believe, under such circumstances as these, like to hear a man swear. It shows that he is in earnest. Anyway, my deposed bride leaned back in her chair, and laughed so heartily that I knew matters would be soon arranged to my satisfaction. In great delight I caught her in my arms, and for once gave her a kiss of real affection."

"Did you think I was going to let you marry me for the sake of a few cups and saucers?" she cried; "I am not such a stupid old woman as that. But, in truth, Robert, I have grown very fond of you, so if Ethel will have you, take her. But only on conditions."

"Name them, dear Miss Crofton!" I exclaimed; "anything—everything you wish."

"You must prove the earnestness of your love for my darling girl and the recovery from your insanity, by sending me your Chelsea as a present. I shall then give the whole set to the South Kensington or Jermyn Street Museum."

"I mustn't tell you all about our love-making or Mrs. Headley would never forgive me," but Ethel and I arranged matters very quickly, and upon my return home that evening I opened my cabinet, and almost without a pang packed my two cups and saucers, teapot, and sugar-basin in cotton wool, and the next morning forwarded them to Miss Crofton. You have seen Ethel, and I dare say you think I did not make a bad exchange."

"I should think not," I said. "But how comes the set to be in your cabinet now?"

"The old lady kept me in great suspense all the time Ethel and I were engaged, and although I hid my feelings, I began soon to think that it would be very nice to have Ethel and the china, but I dared not hint such a thing to Miss Crofton, who, moreover, teased me dreadfully by praising in Ethel's presence my generosity in making her so beautiful a present."

"While on our honeymoon I thought no more of it—in fact, gave it up for lost; and you may guess my joy when we returned to town to see in my room a strange cabinet, with the set as you see it now. So I got a good wife and completed the service as well."

Just then the door opened and a voice said, with assumed perturbation:

"Are you gentlemen never coming? Aunt Leslie is up stairs, Robert, and wishes to see you before her carriage fetches her."

"Let us go up, Burke," said Headley, as we finished the last of the claret; "and if you want any more particulars of my Chelsea mania, Miss Crofton will give them to you."—All the Year Round.

Poisonous Sweets.

The New York State analyst, Prof. W. H. Pitt, was recently interviewed in relation to the adulteration of candies, and said:

"There is a great deal of adulteration, but it is not confined to this or any other season. Goods are adulterated all the time, and the public ought to know it. Glucose is used more extensively than any other substance. It is manipulated with a little flour or starch, and can not be detected by the taste. You will find it in every kind of candy. I think nine-tenths of the cheaper candies are made of glucose. Formerly candy was made of cane sugar, but now the cane product has given way to corn saccharine. Those chocolate creams that peep out at you so invitingly have an interior of glucose, terra alba and starch, nothing else. Gumdrops are composed of gum arabic, with a generous amount of glucose. Many of the ingredients of candy are indigestible. They give body and weight, and are disguised by sweets—gypsum or plaster of paris is largely used. The highly colored candies are dangerous, and should be avoided. Red is produced with vermilion, sulphide of mercury and red lead, or oxide of lead—very poisonous. Many of the blues are very poisonous, particularly if made of cobalt blue. Yellow colored candies should never be eaten. The color is produced by chromate of lead, and when once taken into the stomach is never eliminated from the system. It is a wily foe to life, and waits for reinforcement to eventually destroy its victim. Candy toys should never be touched. They are purchased because of their form. A little slipper, cat, dog or a doll is very pleasing, but it contains poison. These toys are all painted with dangerous colors. They don't break if they fall now as they used to, because they are made of tenacious glucose, and not cane sugar. A fall from a five story window would hardly hurt them. I don't think you will find a toy made of pure sugar."

Young America.

Henry James, Jr., has written nothing since "Daisy Miller" so interesting from "The Point of View" of Americans as his sketch under the latter title in the December Century. It is an attempt to depict American life from the point of view of several Americans who have lived in Europe and an Englishman and a French Academician who are traveling in America. Miss Sturdy, writing from Newport, to Mrs. Draper at Florence, says: "My little nephews, when I first came home, had not gone back to school, and it distressed me so that, though they are charming children, they had the vocal inflexions of little newboys. My niece is 16 years old; she has the sweetest nature possible; she is extremely well-bred, and is dressed to perfection. She chatters from morning to night; but it isn't a pleasant sound! These little persons are in the opposite case from so many English girls, who know how to speak, but don't know how to talk. My niece knows how to talk, but doesn't know how to speak. Apropos of the young people, that is our other danger; the young people are eating us up—there is nothing in America but the young people. The country is made for the rising generation; life is arranged for them; they are the destruction of society. People talk of them, consider them, defer to them, bow down to them. They are always present, and whenever they are present there is an end to everything else. They are often very pretty; and physically, they are wonderfully looked after; they are scoured and brushed; they wear hygienic clothes, they go every week to the dentist's. But the little boys kick your shins and the little girls offer to slap your face! There is an immense literature entirely addressed to them, in which the kicking of shins and the slapping of faces is much recommended. As a woman of fifty, I protest. I insist on being judged by my peers. It's too late, however, for several millions of little feet are actively engaged in stamping out conversation, and I don't see how they can long fail to keep it under. The future is theirs; maturity will evidently be at an increasing discount. Longfellow wrote a charming little poem called 'The Children's Hour,' but he ought to have called it 'The Children's Century.' And by the children, of course, I don't mean simple infants; I mean everything of less than twenty. The social importance of the young American increases steadily up to that age, and then it suddenly stops. The young girls, of course, are more important than the lads; but the lads are very important too."

"I am struck with the way they are known and talked about; they are little celebrities; they have reputations and pretensions; they are taken very seriously. As for the young girls, as I said just now, there are too many. You will say, perhaps, that I am jealous of them, with my fifty years and my red face. I don't think so, because I don't suffer; my red face doesn't frighten people away, and I always find plenty of talkers. The young girls themselves, I believe, like me very much; and as for me, I delight in the young girls. They are often very pretty, not so pretty as people say in the magazines, but pretty enough."

How a Man Sees on a Button.

Did you ever see a man in the solitude and privacy of his study attempt to sew a button on by himself? It is in all its details one of the most interesting performances in the world. First he hunts for a button. Generally to secure it he robs Peter to pay Paul, and cuts one from another garment. This may be much larger or much smaller than the size he is wearing. Next, he hunts a needle. Probably he goes out and buys a paper of needles, having the impression that large needles will sew stronger than small needles. As to thread, he gets the coarsest he can find, and this he doubles. He would thread his needle. He takes his big needle in one hand, his coarse black thread in the other. He bites off the thread to the desired length. Then he tries to twist it to a fine point. Generally in this he succeeds in making two and sometimes three fine points out of one end. Of course he can't get all these points through the needle's eye at once. He tries hard to make that needle and thread get on friendly terms with each other, but they won't. They don't want to get acquainted. They do not wish to have anything to do with each other. Sometimes it is the needle that kicks; sometimes the thread. Sometimes he really imagines he has threaded his needle. It is an ocular delusion. The thread has missed the needle's eye by half an inch. It is harder work than sewing wood.

At last the needle is threaded. Now he tries to sew the button on without taking his trousers off. This proves a failure. He twists himself in an uncomfortable position, and so would sew. But he can't sew so. He runs the needle into himself. And the contrary thread always insists on fouling or doubling round the next button. Then one part of the doubled thread won't work harmoniously with the other part. One part draws through the button's eye first and leaves the other part behind. Then he gets hitched up, and the ambassador swears. He may not swear audibly, but the recording angel knows what's going on in him, and debits him with every item. He sews hard. He has forgotten all about the necessity for a thimble. He jams his thumb down on the needle's head and it punctures his thumb or runs under the nail. By and by he sews the button on the full of thread. His big needle doesn't pass through any more. He must stop. He ends by winding the thread as many times as it will go under the button. And perhaps he leaves off with two or three inches of thread sticking outside. A woman can, through many outward indications, tell when a man has been trying to sew on a button. He doesn't know the shibboleth of needle and thread, and it catches some every time. At last the button is sewed on and he is proud of his work.—New York Graphic.

PITTSBURG, MASS., Sept. 28, 1878.

SRS.—I have taken Hop Bitters and recommend them to others, as I found them very beneficial.

MRS. J. W. TULLER.

Sec. Women's Christian Temperance Union.

Feathers, ribbons, velvet can all be colored to match that new hat by using the Diamond Dyes. 10 cents for any color.

A MODERN FAULT.

They sat 'neath the tree together,
In the silent garden of Kew,
Mid the charm of the May-time weather,
And the English sky so blue.

From the daisies growing round them,
With their faces turned to the sun,
He gathered the largest and fairest,
Then pulled the leaves from one.

"What have you named your daisy?"
She asked with coquettish voice;
"Answer, sir, don't be lazy,
Who is the girl of your choice?"

His black eyes flashed upon her,
"Why, what a question from you!
Un peu; pas du tout; beaucou;
Ah! the daisy says beaucou."

"What do you think I have named it?"
He said in tenderest tone;
"Can't you guess the name of all others
I should care to call my own?"

Her eyes looked deep and dreamy,
And her cheeks grew softly red;
"I think you had better tell me,
She whispered with drooping head.

"Well! if you will know," he answered,
Scattering the petals white,
"It's that black-eyed girl from Boston,
I walked with twice last night!"

—Our Continues.

Thought His Time Had Come.

For twenty years an old man of our country, whom we will call Jack Baldwin, has cultivated the soil and drawn therefrom support for himself and his wife; he is childless. Not long since Jack left his house in search of a missing cow. His route led him through an old worn-out piece of clay land of about six acres in extent, in the center of which was a well about thirty feet deep that at some time had probably furnished the inmates of a dilapidated house near by with water. In passing the spot an ill wind drifted Jack's hat from his head and maliciously wafted it to the edge of the well and it tumbled in. Now, Jack had always practiced the virtue of economy, and he immediately set about recovering his hat. He ran to the well, and finding that it was dry at the bottom he unrolled the rope which he had brought for the purpose of capturing the cow, and after several attempts to catch the hat with a noose he concluded to save time by going down into the well himself. To accomplish this he made fast one end of the rope to a stump hard by, and was soon on his way down into the well.

It was a way of which Jack was less obvious than the reader heretofore—that a mischievous fellow, whom we will call Neal Willis, was in the old building and saw Jack go down into the well, and it so happened that Jack's old blind horse was near by with a bell on his neck. The devil himself, or some other wicked spirit, put it into Neal's head to have a little fun; so he slipped up to the old horse, unbuckled the strap and approached the well with the bell in his hand, ting-a-ling. Jack thought the old horse was coming, and said, in an audible tone: "Hang the blind horse, he's comin' this way, sure, and he ain't got no more sense than to fall in here on me—wo, Ball!" But the sound of the bell came closer, and Jack was resting at the bottom of the well. "Great Jerusalem!" said Jack; "the old blind fool will be right on top of me in a minute—wo, Ball—haw, haw, Ball!" Just then Neal got close to the well and kicked a little dirt on Jack's head. Jack thought Ball about to come, got close to the side of the well and began to pray: "Oh, Lord, have mercy on—wo, Ball—a poor sinner—I'm gone now—wo, Ball—Our Father who art in—wo, Ball—heaven, hallowed be Thy—jee! Ball, jee! what'll I do—name. Now I lay me down to—jee, Ball, out of your lives! Just then in fell more dirt back, Ball; Oh Lord, if you ever intend to do anything for me—jee, Ball, wo, wo! This kingdom come—jee, Ball—Oh, Lord, you know I was baptized in Smith's mill dam—wo, Ball, ho! murder! wo—farewell world."

Neal could hold out no longer and showed himself at the top of the well, with a big horse laugh which might have been heard two miles. This was more than Jack could bear and he started up the rope like a monkey. "Darn your picture, I'll give you fists; I'll make your ears ring worse 'an like a quarter horse, and the last that was seen of him he was half a mile from the well, with two big dogs grabbing at his coat and Jack close behind him.

A Miner's Bear Story.

The boys are nearly all down from the mountains and now securely housed for the winter. They have traveled all over Idaho, Montana and New Mexico in search of wealth, and come back to Salt Lake City to rest and swap lies. If there is one man in the world that can lie it is a prospector. A horseman will lie about his colts, a stockman will spin yarns about his cattle; but for pure, unadulterated fabrications, give us the miner. Here they are, heels elevated on stoves, and earnest listeners; one would think their bank account was unlimited. One of them says: "Over onto Yankee Fork last season I struck some rich float. It was good, you bet. Being rather late in the evening and knowing there was no one around, I thought I'd take it in next morning. Well, I started out early before sun-up, and I was so excited that I left my gun after I was in the blankets. Well, as I was traveling along the trail just where the canyon narrows so that two men could hardly pass each other, what in thunder should I see but a big brown bear coming down the trail. Now, I had nothing on me to show fight with, and the bear didn't seem inclined to run away, and I was in a bad fix. Well, boys, do you know what I did? I just fell down on all fours and commenced to prance. The bear pranced, we both pranced up to each other, he sided up to me and I sided up to him, he kissed my ear and I kissed his, and we both went along about our business as though nothing had happened.—Salt Lake Tribune.

Ayer's Sarsaparilla is the most potent blood purifier, and a fountain of health and strength. Be wise in time. All baneful infections are promptly removed by this unequalled alternative.

Protection for home industries—A lock and key on the pantry door.

"Rough On Corns." Ask for Wells' "Rough On Corns." 15c. Quick, complete, permanent cure. Corns, warts, bunions.

VARIETIES.

A LATE number of a well-known fashion journal says:
"Annie of Austria collarettes are suitable only for matinee jackets. Turkish fez caps are worn only as breakfast caps."
Apropos of these edicts of fashion an incident:
Seated near a couple of ladies at the Grand the other night we overheard a portion of their conversation.
Said one: "You notice that I have on an Annie of Austria collarette."
"Yes," responded the other, "what could you have been thinking about, my dear? You know they are only worn at matinees."
"Of course I do, and I felt so mortified. I don't see how I came to make such a blunder. What in the world will people think? But I am always doing something dreadful; the other day I went down to dinner with my fez cap on. Just think of it, wearing a breakfast cap to dinner! Did you ever hear anything so ridiculous in your life?"
And the other lady vowed that she never had.
A brutal fellow next to us, who had been listening to the conversation, turned to us, and in a voice distinctly audible to the ladies, remarked:
"Queer what funny mistakes a man will make about his toilet. You wouldn't believe it now, but it's a fact that I've come here to-night with my suspenders on wrong side out."

"Great Caesar! Is that so?" he ejaculated.
"Yes," said he, "and I never felt so shamed in all my life. But I've done worse things than that."
"Impossible!"
"Yes, sir; only last Sunday I went to church with my opera-hat on, and the next night I took in a variety show in my Sunday boots," and then the horrid thing went out to get a drink.—Cincinnati Saturday Night.

As Oscar Wilde young man, who lives on the North Side and smokes cigarettes, heard his adored express a wish for a rabbit. Wandering at dusk past a residence surrounded by a spacious lawn, and pondering the possibilities of raising a lucra enough to purchase a long-eared pet for the damsel, his attention was attracted by a white object on the lawn. Closer examination showed it to be a rabbit. In the shadow of some shrubs the little animal sat on its haunches, with ears erect. He chuckled to himself as he saw how he could save the money he was going to borrow by a rabbit. He climbed the fence, undismayed by the four-inch gash in his wall-paper trousers, and stole softly upon the unsuspecting rabbit. The rabbit never stirred. Taking off his elegant tie, that he had stood Dunlap off for that morning, he pounced upon the poor thing and jammed the hat down over it, and the two white ears stuck through the new tie-top. It was an iron rabbit.—Chicago Tribune.

It is very well known that, although medical advice is made much sport of by certain of the laity, it is a practice among some to get such advice surreptitiously at an ordinary social interview whenever they can. The most innocent conversation sometimes conceals an insidious demand, or ends in a direct request for a medical opinion. One day a physician met in the street a gentleman who was accustomed to annoy him in this way. The doctor was stopped, and a number of physical troubles rehearsed. "Great heavens!" said our Aesculapius in affected alarm, "is that the case? Let me see your tongue." The would-be patient looked around suspiciously, then opened his mouth with some reluctance. "I tell you," said the doctor, with apparent irritation, "put out your tongue. How can I make a diagnosis if I only see the tip! There, hold still! Farther! Now close your eyes." The patient, conquered, shut his eyes tightly and thrust out his tongue to the utmost. The doctor stepped around the corner quick as a flash, and was troubled no more for advice gratis.

MR. WHACKEM, a Frankford teacher, was arrested recently and gave bonds for an assault on one of his pupils. He was reviewing his classes, and when he came to this boy whose name is Kosciusko Murphy, Jr., his pupil failed to answer the simplest questions. He was particularly defective in definitions.
"You don't know the meaning of any English words. Are there any other words in any other language of which you can give the definitions?" asked Mr. Whackem, sarcastically.
"Yes, I know the meaning of some Chinese words."
"You do, do you?" asked Mr. W. in a more sarcastic manner. "Do you know what the Chinese word for donkey is?"
"Yes."
"What is it?"
"Whackem!"
And Whackem took the hint and did, whack him with profuse liberality.

Two workmen stopped in front of a Water Street store night before last to inspect the wonderful electric light, the first they had ever seen.
"So that is the 'lectric light, is it?" ejaculated one of the red sash boys.
"Yes, that's what it is. Now, do you know where it comes from?" said the other.
"From the manufactory, I s'pose," was the answer.
"Naw it don't, neither. Be jabbers you can't fool this 'ere chilek about that. Why, you can't see it on the wires, there, can you?" said the first speaker, pointing to the wires leading to the poles from the store.
After considerable discussion it was agreed that the light must be manufactured in "that er gallows abode concern and sent out of them two copper sticks."—Bay City Tribune.

As two young girls were riding in an omnibus, one of them, with features remarkable for prominence of nose, exhibited to the other a daguerreotype of herself, and they were engaged in discussing its merits, when an elderly lady got in. After awhile she said to the young girl with the picture: "Would you allow me to look at it?" Her modest request was met with an indignant: "It's none of your business." The old lady settled herself back in her seat very complacently, when the companion of the one with the picture asked: "What did you wish to do with it?" "Oh, nothing," replied the old lady; "I only wanted to see how successfully the artist had put such a nose on so small a plate!"

HERA Professor (with sudden impulse to du. cal amateur, whom he was accompanying in "Deeper and Deeper Still):
"Take hands, my talented young friend! I had better before heart ze nople reciddeft zung so vell to eggshcheb ze vorrie!"
Ducal amateur (who occasionally sings a little out of tune):
"A—you—a—flatter me, I fear."
"Ach, no! Vy, you commenced it more or less in B, you gounded it somewhere about B vlat, and you finished it almost in A!—and all ze while I was blaying ze eggblommand in C!! Now, zat is 'Teper and teeper schillit,' and no mischance! 'Take hands!'"

The witty professor is very proud of his "Little pig of mine," and is always "wondering vy zat snevlet Mrs. Bunzempy to Dombgyns has consuetedly tropped him?"

Chaff.

The original Land League.—Three miles.
Children are like bolts. Everybody knows how to take care of those that belong to other people.
An exchange says that self-made men have generally a great deal to say in praise of their architects.
A local Mrs. Malprow gushingly says that she "does so love to sit at the piano in the gloaming, and improviser."

A blind mendicant in Paris wears this inscription round his neck: "Don't be ashamed to give only a sou. I can't see."
"Time is a good deal like a mule," wrote Johnny in his composition. "It is better to be ahead of time than behind time."
The trouble with Keely seems to be that the secret of his motor is locked up in his brain, and he has forgotten the combination.
The proprietor of a Boston restaurant advertises his sausages as "unapproachable." There must be enough life left in them to growl.

Brown (as he was leaving our art conversation, after a rattling scramble in the cloak-room): "Confound it, got my own hat, after all!"
The interchange of Christmas presents in many cases means the giving something you can't afford to return for something you don't want.

"My dear," remarked the miller's wife, as she came home after a long day's work, "if it takes ten mills to make a cent, where is the profit on flour?"
A quack doctor heads his advertisement: "Ho, all ye dyspeptics! That's just what ails ye! perities won't do. If they would all die vigorously, they might not need any medicine."

A correspondent tells an anecdote of an old woman, who, when her pastor said to her, "Heaven has not deserted you in your old age," replied: "No, sir; I have a very great appetite still."

A Pennsylvania man has a mouse in his office which "sings and chirps all night like a bird." We can suggest nothing to meet the emergency unless it is a good-sized hungry cat.

When Pat was sent to the lobster pot to see if there was anything in it, he said, upon returning: "There was nothing in it, but I was only gone one, and so I tossed them all overboard."

"What shall I write about?" asked a young reporter of the managing editor. "Oh, write about the first thing that comes into your head," said the editor. "Well, I don't know," replied the reporter. "The scribe drew his pen at night for an article on 'door-knobs.'"

A woman, lately looking at a printing-press at work, turned to her companion, and in a most earnest manner inquired: "Well, Charley, are them's the things that writes the papers? Be's them what they call editors?"

Those English Collars.—First Swell: "By Jove, Fred, that is quite the highest collar I've struck yet." Second Swell: "Well, honest man! Well, I don't mind telling you; it's a little idea of my own. It's one of the governor's cuffs."

A Chicago clothing store gives a present of a coat stove with an overcoat. Some of the ready-made coats need a furnace in them to keep a man warm. More wool and wadding and less coal stoves is what the boys want.—Puck's Story.

"What is the difference between the youths and men's clothing department at the big clothing shop?" asked an Irishman of a friend; and, receiving no reply, he continued: "Because at the man I buy me clothes, and at the other I clothes me by's."

Speaking of the report that the Marquis of Lorne fears that the Indians will try to kidnap him while he is in the United States, the Buffalo Courier says: "How delighted it must be to preserve in this way through middle life the romantic delusions of childhood!"

The hymnology of the poets of the Salvation Army puts the efforts of Pusey and Roundell Palmer in the shade. The newest thing in the shape of refrains is as follows:

"If you can't get in at the Golden Gate, Get over the Garden Wall."

A countryman sowing his ground, two smart fellows riding that way, one of them called to him with an insolent air: "Well, honest man, low," said he, "is your business to sow, but we reap the fruits of your labor." To which the countryman replied: "This very like you may, for I am sowing hemp."

"John, what odor is that?" "Cloves, love!" "But the other?" "Allspice, my beloved." "But isn't there another?" "Yes, apples, belovedest." "Just one more?" "Raisins, my most belovedest." "Well, John, if you'd only drink just a little brandy now I think you'd make a good mine pie."

"Why did you name your paper The Six Months?" was asked of an Arkansas editor. "Well, you see," he replied, "a fellow across the road there was running a paper called the Year, and knowing that most any farmer would rather subscribe for six months than a year, I took my chances on the shorter time and named my paper, The Six Months."

Of all the letters requesting advice, assistance or information, which have been received by the editor of the Household within the past two years, and which have been answered through the columns of the FARMER or by personal letter, perhaps the most interesting and the most pathetic was received last week. It is the old story of a loving girl clinging to a reckless and dissipated young man, whose love for his vices is stronger than his love for her, while he will not relinquish either entirely. A brief extract from the letter—without data to aid identification, tells the story:

"Before we were engaged he had been, with a fast set of young men and got into bad habits, but I did not know how bad. He promised to reform if I would marry him, and signed the pledge and for awhile kept straight. But his old friends—though God knows they were his worst enemies—tempted him back, and I could not help myself. * * * He broke off again, and I really believe meant to do better, but temptation came again and was too strong. * * * I said I would not have anything more to do with him, and gave him his freedom. Now he says if I will not have him, he don't care what comes of him, and will not try to be any body, but if I will marry him right away, we will go into some place where his old companions cannot influence him, and begin over again. I hardly dare trust him, yet my heart pleads for him. What ought I to do?"

I can quote in reply to this question, a stanza from a fugitive scrap of rhyme floating about under the heading given this article, which, however it may halt on its poetic "feet," contains sound sense and truth:

"You can pray for his soul from morn till eve,
You can wish for the angels to bring him
To his sin-stained soul, but you'll always grieve
If you marry a man 'to save him.'"

There is, humanly speaking, no safety in marrying a man who has shown so little firmness and stability as to break his pledge and promises of reform so many times, unless one is prepared to accept the probability of becoming, at no late date, a drunkard's wife, with all the shame, privation, and suffering implied in

the term. It seldom happens that a man can resist temptation in one place which he cannot conquer in another; yet instances have been known where, removed from old associations, a dissipated youth has fought the good fight, conquered, and become a useful member of society. But, let him fight and conquer before you link him self irrevocable to him; do not give him his reward first, but let him work for it, if he deems it worth having. And even then, there is a fearful risk to run, lest that temptation, which assails us in all places and under all circumstances, may prove too strong for resolution and principle, even when the latter have triumphed for months or years. If a fondness for intoxicants is a family trait, the chances of permanent reform are still further lessened; there are inherited tastes to be continually fought.

A young man makes use of a strong and at the same time a cowardly plea, when he begs a girl to marry him "to save him." He appeals to her affection for him, implying that it is strong enough to control his appetite, and that for love of her he can do what he cannot or will not, do for himself. He pays a subtle compliment to her pride and vanity, since she can do what no other can; and he is cowardly, because he tacitly puts the blame of his ruin—if it follows—on her shoulders, through her refusal to grant his desires. But it seems to me that if a young man's pride is not great enough to make him wish to offer the woman he chooses for his wife, himself, as fit her acceptance as he can make himself, she can do little toward helping him "purify himself." He exacts of her the utmost purity, but does not hesitate to ask her to take himself out of the moral gutter to stand by her side! Would not it be best to stay to him, as did Elizabeth of England to an erring sister: "Cherrie amie, I would be happy to stand by you, but I have no character enough for two."

It does not seem to occur to these men who beg the girls to "save them," by marrying them, that a pure, sweet, true-hearted girl has a right to demand something beside a sin-bound man, wise in all wickedness, with a record writ in dens of infamy, too morally weak to stand alone, but depending on a woman's aid to help him to decency; that perhaps the pure may have a predilection for like purity; that a woman has a right to require of her lover as clean a life as she expects of her; that she should be as worthy of honor as she to be called a "pearl among women," that she has a right as well as he to require all that is best in him, and that that best is none too good for her. They do not consider that instead of leaning upon a woman's strength and courage, they should rather offer their own as a bulwark to her helplessness, and that while they would resent the imputation of being controlled by a woman, it is hard for her to seem to follow, yet really always lead. Perhaps they do not understand that the firmest band that links a woman's heart to her husband's is to feel that he is her master, not in the sense of slavish subordination, but as superior, in the true meaning of the saying, "and he shall rule over her."

Nor in their selfish desire for possession, do young men seem to consider what a fearful burden they impose upon the women they profess to love, when they ask them to do what they acknowledge their own inability to do, and undertake to keep them from vice, with but one weapon to depend upon, and that, always in such instances, a frail one to lean upon. What power has a woman to use against the vicious tastes of a man but love! By no other means can she possibly hope to restrain or keep even the slightest hold upon him. And if that love is not mighty enough to lead to thorough reformation, when the beloved object is yet to be won, and possession is consequent upon that reformation, what hope is there in the future, when the object is obtained?

There are too many young girls who are willing to marry young men, whose moral characters and habits will not bear inspection, thus wrecking their lives before they have hardly commenced the voyage; there are too many mothers—and fathers too—who allow the worldly standing and present possessions of a suitor, his ability to furnish their daughter a comfortable if not luxurious home at once, to blind them to what is far more important, the reputation he bears among his neighbors. Is a revel, fond of "down town," not averse to a ride with "the boys," is he parsimonious, hard at a bargain, quick to take a mean advantage, brutal to animals, and disrespectful to his parents? if so, a good farm and a big house on it ought not to overbalance these disadvantages. We must not expect too much of "poor humanity;" there are unfortunately few who have a moral bill of health which is clean all through, but it is at least wise to look out for palpable vices, and take heed of outward indications which point to inward predispositions. Very much might be done by parents in guiding and controlling the settlement in life of the young people of their families, if they would but exercise a wise supervision as to the friends and associates of the latter, and if they would lay a solid foundation of right thinking on the subject of the venality of social transgressions.

And the girls may set it down as an assured fact, that it is a solemn thing to "marry a man to save him." There is something radically wrong about him if he needs "saving" in that way; and she who is foolishly enough to undertake it, casts into one side of the balance all the glorious possibilities of her young life, too often to find them outweighed by depraved tastes. She should weigh the chances of failure as well as success, and see what her life will be if she fails; see it in all its unloveliness, its humiliations and deprivations, and choose, with the thought in her heart that she makes or mars her own life, and that, with her best endeavor, her most faithful love and self denial, she may yet fail of

"Making a path for his godless feet,
Up to the grace of the Mercy-seat."

BEATRIX.

Next.

When you have tried so-called remedies for dyspepsia, headache and biliousness, with no benefit, let your next trial be Simmons' Liver Regulator. It has never failed in relieving and curing.

THE VALUE OF WATER.

When we consider how largely water enters into the preparation of our food, and its indispensability under any circumstances, we realize how essential it is that we should have not alone a large, but a pure supply of this useful element. On most farms quantity is made a greater desideratum than quality, so large a supply being needed for stock and household purposes. The man who arranges for a constant supply of water, both soft and "hard," and makes proper arrangements for the disposal of the waste, has banished the terrors of "wash day," and greatly lightened the work in the kitchen. No farm house—or any other house—should be built without provision for the cistern pump in the kitchen, or in a "pump room" adjacent, and a pipe should be laid to convey to a safe distance all the waste water and liquid slops. The "rain water barrel" with its "outlying districts" of boards adjusted to catch the drip from the roof, has, we hope, been retired from the premises of every reader of the FARMER, in favor of the capacious reservoir holding a supply warranted to last a summer's drought, and with a good pump in it. If the water can be either filtered, or allowed to pass through a sieve which will remove all debris washed from the roof, it will keep sweet much longer. There is a very simple appliance by which this may be done, but we believe it is covered by a patent, though it seems as if there was no more call for a patent upon it than for a restriction as regards the use of a cistern at all. The water on the way to the cistern runs into a tank or barrel. As this overflows, it passes out again through another pipe into the cistern, giving opportunity for it to settle and be filtered in the first receptacle.

No one but a woman and a housekeeper knows how important a factor water becomes in domestic economy, nor how large a supply is needed for every day's consumption. It will take as much, if not more, water to supply the needs of a good sized family, averaging the week through, as to water all the stock on the farm. But many a man whose cattle and horses are watered by means of a windmill, which spares him the trouble of agitating the pump handle, thinks nothing of letting his wife or "the girls" carry the water for domestic purposes from a well fifty or one hundred yards from the house, or "hook up" a supply from the cistern with a crocheted pole. "This ought not to be thus, my countrymen!" do not be selfish in this matter of conveniences for doing work, but if you make things "handy" for yourself, see that labor-saving appliances lighten as much as may be, the work of the other and often "silent" partner in the matrimonial partnership.

In locating a well it is best to remember that a well from forty to sixty feet deep will drain a circle of not less than 200 feet in diameter, and in loose, gravelly soil, a still greater area. The thought of receiving into such a reservoir the surface drainage of the barnyard, the sewerage from the house, or impurities from any source is so disgusting that the sight of a well in close proximity to such things, somehow makes us prefer a cup of tea, in which the germs of disease have been at least "well boiled," to the cup of cold, sparkling water from the most picturesque of "old oaken buckets." The water may be tasteless, and unchanged in color, giving no evidence of its foul contents, yet none the less surely is it surcharged with slow poison, the seeds of diphtheria, typhoid fever and kindred diseases. It is not safe, according to scientists, to employ galvanized iron or lead pipes for any purpose about wells or cisterns. The galvanized coating consists of zinc or zinc and tin, and a chemical change is induced by the action of the water on the metal by which oxide and carbonate of zinc are formed and held suspended in the water. These are extremely poisonous.

Plenty of water suggests personal cleanliness, so promotive of good health. It would be well if every farmer's house were provided with a bathroom where after the dragging or plowing in the dust, he could indulge in the luxury of a bath more extended than the usual removal of a coating of soil from hands, face and feet, where the tired woman after her forenoon's engagement with the flatirons, could "cool off," and the babies, blest 'em! be scoured and polished till sweet and rosy as only plenty of water can make them.

To those about to build new houses, or reconstruct the old ones, we suggest: Make provision for water in the kitchen whether you have plate glass windows in the parlor or not. The running out of doors for every pail of water, perhaps up and down three or four steps as well, is a fruitful source of "tiredness" as well as a stepping stone to serious diseases. Also exercise your natural Yankee "gumption" toward the securing a small room to be furnished with zinc bathtub, with pipes from the pump to fill and a waste pipe to empty it, and enjoy one of the greatest luxuries of civilization.

DANCING.

Hitherto I have stood aloof, a quiet listener, but am roused to enter and say my say, by M. M.'s slightly uncharitable attack on dancing and dancers. I can see no reason why the reverend pastor of any church should not invoke God's blessing on the proceedings of any respectable dance, and join the dance himself afterward, if so minded, and have no reason to feel that he had brought discredit on himself or his church. There you have my opinion, and may perhaps be more shocked by it than if you really heard the pastor yourself. Why should we condemn an innocent amusement, which is a part of the nature of every one? I have seen a little girl of three summers dance to the music of her mother's singing, over the floor, sometimes on the tips of her little boots, whirling round and round, and taking such grown up would fill the heart of many a step on young lady with envy.

Young people are always sociably inclined, and will seek amusement somewhere, and when parents are wise enough

to open their own houses, and give their children and their neighbors' children the opportunity of dancing, where there need be no "miscellaneous embracing," and where they may know with whom their children are associating, there need be no fear of evil results; and as they grow older, even if their heads are crowned with silver—and still they love to dance, I contend that it is well that they should do so. If the aged man with furrowed brow was "a bad man" I do not think dancing made him so, or that it made him worse, unless the company he was in was such that he was influenced to more evil than was already in his own heart. Suppose you had seen an old man dancing, whom your friend had said was a good man, would you have been as willing to believe and make a record of that also? Ah, if we have no greater sin than dancing to feel remorseful over, methinks we may keep on as long as we like, though we "but little left to do but die," and still our hearts will go out in joyous anticipation to the unseen world to which we soon may pass. In the words that fell from the gentle Saviour's lips, the father of the prodigal son, besides killing the fattest calf, celebrated his son's return with music and dancing. As then, dancing seems to have been an amusement known in those days, if it had been considered so much of an evil, would not Jesus have given some word against it? In all of his teachings there is not a word of the kind—if I mistake not—while they team with charity and love toward the whole human family, teaching us not to judge one another, for only God can look upon the heart. We cannot tell how kindly the heart may beat beneath a satin robe, though the feet may whirl in the mazes of the dance, and the head be silvered with age. It seems to me, the better lives we live, I mean the more unselfish, kind and charitable we are in our feelings and actions towards all our brothers and sisters in the great human family, the lighter and happier our hearts will be, and we are told that "a merry heart doth good like a medicine." When old fogeyism, which is already "dying at the top," (by which I mean in the minds of our best and smartest preachers,) is laid in its grave, we shall see the churches encouraging their young members to dance in proper places, at proper times, thus shielding them from the temptation to attend public balls, for want of a better place to find the amusement that is natural, right and innocent. "Roll round, ye wheels of time, and speed the welcome day."

WILLIAMSON, Jan. 10th. H. E. R.

MORE ABOUT DANCING.

When that "Young Reader" sought for advice about dancing, in the Household columns, he had certainly better have gone to his pastor or some clergyman. For as he is a reader of this paper he will probably read all that will be said for and against, and then not be able to see which side has the most truth. Beatrix and M. M. well know what a large field for argument they have entered upon. They therefore let us know in the beginning that they don't mean to quarrel. Now I do the same.

I take sides with "M. M.," and think she has shown the truth very plainly. Of course I don't mean to condemn the exercise received in dancing, but take it as a whole, with all its surrounding circumstances. But the bodily exercise obtained in dancing might be had in purer air and better company than ball rooms generally furnish. Should not young folks and others enjoy best with father and mother, sister and brother, young and old in their company, seeing all of them glad? Some one will say experience shows that such is not the case. He may be right, but don't that prove that he is a little on the wrong path in seeking his amusements. I say, let young and old be present, or let each dance by themselves, and the ball rooms will be empty. And to M. M.'s view of dancing church members, I wish to add this: The same wind that blows a person to dances will blow him out of church. Yes, it is a wind that blows in that direction. I expect some other Household member to argue some of the many other points in this question.

CALEDONIA, Jan. 4th. F. W. R.

Useful Recipes.

WHITE SPOTS ON WINDOW SILLS.—A white spot is often made on a painted window sill by allowing flower pots to set long thereon. To remedy this take fine wood ashes, rub the spot, then wash off with clean water.

TAFIOCA CREAM.—Three tablespoons tafioca, soaked in a teacup of water over night; add one quart of milk; stir together and boil 20 minutes. Beat the yolks of three eggs and one cup of sugar thoroughly; stir into the milk; flavor with vanilla. Beat the whites very stiff, put in the bottom of the dish and pour the rest over it. Serve when hot.

LEMON PIE.—Yolks of three eggs beaten well, to which add one full cup of sugar, the juice and grated rind of one lemon, and one tablespoonful of flour, stirred into two-thirds cup of water. Bake in a hot oven. As soon as the custard is fairly set and the crust done, spread over the top the whites of the eggs, previously beaten stiff with a little sugar, and return to the oven to brown a trifle.

STOVES blackened when entirely cold will keep the clean look a very great deal longer than when they are polished when the stove is warm. Zinc can be brightened by rubbing it with kerosene oil, but it is much better to have it painted, as this will save much labor. It is said that coal oil rubbed on with a flannel rag, will brighten the nickel platings of stoves and grates.

APPLE PUDDING.—Two cupsful of fine crumbs; two cupsful of chopped apples; one cupful of sugar; one teaspoonful mixed cinnamon and mace; a little grated lemon peel; juice of lemon; half a pound raisins, seeded and chopped; four eggs; one cup of milk; pinch of soda in the milk. Scald the milk; pour upon the crumbs, and beat light. Add beaten yolks, sugar, fruit, and spice—at last, the whites. Bake in a buttered dish, covered, half an hour; then uncover and drain. Eat hot with sweet sauce. It is very good.

Cataract of the Bladder.
Stinging irritation, inflammation, all kidney complaints, cured by "Buchu-palms." \$1.

Ayer's Hair Vigor improves the beauty of the hair and promotes its growth. It imparts an attractive appearance, a delightful and lasting perfume. While it stimulates the roots, cleanses the scalp, and adds elegance to luxuriance, its effects are enduring; and thus it proves itself to be the best and cheapest article for toilet use.

NEW ADVERTISEMENTS.

Taylor, Woolfenden & Co.,
165 & 167 Woodward Avenue
DETROIT, MICH.

No Quarter on Prices!

Good Goods & Low Prices Will Tell

During the month of January, in order to reduce and clean up stock before inventory, we shall offer our entire assortment of

Silks, Velvets, Plushes

DRESS GOODS & CLOAKS

A TREMENDOUS SACRIFICE.

Do not fail to see them, as decided BARGAINS are offered in every Department.

TAYLOR, WOOLFENDEN & CO.
165 & 167 Woodward Ave.
DETROIT, MICH.

BALL'S
Elastic Seta
Coiled
CORSETS

Every Corset is warranted satisfactory to its wearer in every way, or the money will be refunded by the person from whom it was bought. The only Corset pronounced by our leading physicians not injurious to the wearer, and endorsed by ladies as

(Continued from first page.)

he should call the natural or wild shape, as shown by the deer or stag, and the latter shape should be carefully avoided in breeding stock. He said the milk shape, which he should next consider, was to be found in the improved breeds of cattle. Frequently cows with the beef shape were found to be deep milkers, but it was not a general rule, and breeders should remember that only those animals having very prominent milk points would be certain of transmitting them to their offspring. The milk shape might be called the wedge shape—the upper and under lines converging as they go forward, and the lines at the side also. The shoulder should be rather thin, but fairly well covered at the milk vein. The beef shape was undoubtedly the most pleasing to the eye. There would be good animals found in all the breeds; the difference, he thought, was in the percentage of good milkers in each breed. The smaller, or medium sized animals of the various breeds would, as a rule, prove the best for breeding milk stock. In regard to colors he believed mixed colors would be found the best, and those breeders, whether of milk or beef stock, who aimed to breed only solid colors, would certainly injure the quality of their stock. His experience told him solid colors should be avoided. The next point he should consider was the disposition of the animals. A wild, fierce disposition, others mild, contented one. He should of course prefer the latter. The best were those that, improperly handled, would be the most ungovernable. The disposition of the animals of the most domestic disposition if properly cared for and handled. Uniformity of form and characteristics was an important matter, and he would recommend careful attention to it. Handling, he said, had always been considered an important point, and frequently, he thought, carried too far. The hair should be mossy, thick set and sleek, with a medium thickness of skin. Sometimes animals with harsh looking and really had no hair. They had long hairs that had a coarse, harsh look, but the short hair close to the skin was soft and mossy. The secretions of the organs were also an important aid in determining the quality of the animals. The secretions of the body will always correspond with each other, and as milk is a secretion it will be of the same character as the others. If the ear wax is abundant, and of a yellow color, the cream will generally be the same. The secretions in the eyes, the color of the skin as shown by the teeth, around the eyes, etc., are also indications.

In regard to Guenon's milk-mirror or escutcheon, he did not think any of the merits upon it alone, could judge of the milking capacity. Still it was a very important sign and should be carefully studied. Had failed to find it as accurate a sign as Guenon's milk-mirror. He declared it to be a description of the escutcheon was given. It should be, he thought, divided into three parts—the first extending in front of the udder, the second the udder itself, and the third on the inside of the thigh, extending from the rear of the udder to the tail. It was a popular mistake to assume that the escutcheon only referred to that portion extending up the thighs to the tail. In connection with the milk-mirror, the hair of the whole animal should be examined. Dairy animals should have fine, soft hair, and on the neck, face and points, the hair should run into whorls or feathers. Could not say that the feathers that were a sure sign of good, but taken with other signs they were useful in helping to form an estimate of the value of the animal.

The milk veins, being closely connected with the udder, would give indications of the milking qualities of the cow. They should be large and crooked not running in a straight direction. As a rule the animal having the largest veins, taking feed and condition into account, would give the most milk. The longer the veins the better, hence the more crooked they are the longer they become, and the better the milking qualities, as the production of milk is generally in accordance with the size, number and condition of the veins. True veins as single, double and triple veins. Dairy animals should have crooked hind legs, which were less slightly than the straight hind leg as shown by a beef breed such as the Short-horn. Another point is the shape of the ribs; they should not be rounded out in the case of dairy cattle, and the barrel therefore not so round, but breeders must put up with these two points, although not considered signs.

Mr. Baldwin then gave a history of the Dutch cattle. They originated in the Netherlands, of which Holland and Friesland are provinces. The name Holstein was misleading, as Holstein was only a part of Denmark and now of Prussia, and what cattle of this breed they can find undoubtedly came originally from the Netherlands. They have been traced back over two thousand years to the Frisians, the Frisians, a peculiar race of people, very conservative, opposed to all change, and who never mixed with neighboring nations. Their cattle have been bred the same way, and by selection have become wonderfully fertile and productive of that country. No animal has kept until over seven years, the farmers finding that cows failed in their milk after that age, and that it was more profitable to feed and turn them off to the butchers and supply their place with younger stock. A full description of the methods of farm management in the Netherlands was given, and the important place occupied by cattle of the country shown. They had aided the inhabitants to make that country one of the most prosperous and wealthy in Europe. He said there might be a disposition on the part of these Dutch or Frisian cattle of this country, owing to the difference in climate, but this could be obviated by returning to their native country for fresh blood. The Dutch-Frisian, as he preferred to call these cattle, partook largely of the character of the Dutch-Frisian imported to this country, and it was nearly certain that they had been used to go in at one end of the shed. Theoban feeding clover hay, with a liberal feed of grain, oats and corn mixed once a day. The grain I increased gradually to a very heavy feed. For about four weeks I kept constantly before them a mixture of salt, sulphur, tar and ashes, giving free access to clean fresh water. I give the same once a week now, except that I have added a small portion of sulphate of iron. I have not lost any since I shut them up, and they are all in a thriving condition, although, as you remarked in your reply to my letter, some of them are "tucked up" in appearance.

H. B. ANGELL.

Burlington, Vt., Jan. 30, 1882.

I subscribe to the efficiency of Dr. Williams' Pink Pills. It has been a standard remedy in my family for years.

J. A. ARTHUR.

Deputy Customs Collector.

Burlington, Vt., Jan. 30, 1882.

I have used Dr. Williams' Pink Pills for forty years, and consider it a safe and valuable medicine in all cases of coughs, colds, and for any pulmonary trouble.

I always fall back on this old remedy when the symptoms are alarming, and it has never disappointed me.

IRA SHATTUCK.

depended on it alone he was frequently in error. Still he considered it a great assistance.

After some discussion the Secretary was ordered to prepare and print a catalogue of the stock held and owned by the breeders of this State on the first of October next, no reports to be received after the 15th of that month. Milk records are also to be published when furnished.

The meeting then adjourned to meet at Lansing the second Wednesday in January, 1884.

Veterinary Department

Conducted by Prof. Robert Jennings, late of Philadelphia, Pa., author of "The Horse and the Dog," "The Cat and the Rabbit," "The Sheep, Swine and Poultry," "Horse Training Manual," etc. Professional advice through the columns of this journal to regular subscribers free. Particular information will be required to send their full name and address to the office of the editor, no questions will be answered by mail unless accompanied by a fee of one dollar. In order that correct information may be given the symptoms should be accurately described, how long standing, together with color and age of animal, and what treatment, if any, has been resorted to. Private address, 201 First Street, Detroit.

Wolf Teeth in Horses—Cramp.

PARKVILLE, Mich., Jan. 5th, 1883.

Veterinary Editor of the Michigan Farmer.

DEAR SIR:—I have a bay gelding colt, coming four years old in the spring, that has what are generally called wolf teeth on the upper jaw, right in front of the back teeth, one on each side, about a quarter of an inch long. Some say I should have them pulled out, but I am not sure. I have heard of his eyes matter a little once in a while. Others say I should let them alone, that they will come out in time and not hurt him. Please give advice in next paper.

P. S. Sometimes he has something in his left hind leg which causes him to stretch it out behind, resting on the toes, and can not move it forward without apparent great pain; it generally lasts about a day, and he does not seem to mind it. G. S.

Answer.—Wolf teeth usually make their appearance in the mouth of the colt between the first and second year. They are situated immediately in front of the first upper-molar tooth, on either side, and are shed before the process of dentition is fully completed; occasionally they remain in the mouth during the life of the animal. They are not superfluous teeth, as has been asserted by many clever authorities; but are natural teeth found in the mouth of all colts, and should be described as belonging to the deciduous set or milk teeth, and may be found in three out of five colts at two years old. The mistaken notion of farmers and horsemen that these teeth cause blindness in horses, unless removed, arises from want of proper investigation; their presence is not looked for so long as the animal's eyes remain all right; but, when they show indication of weakness, or any morbid condition from whatever cause, the mouth is examined, and the presence of the wolf teeth does the mischief. As there is no distinct communication, or sympathetic action between these teeth and the eye, we would say to those believing in such nonsense, do as we have done in several hundreds of colts, make an examination of the upper-jaw of the newly-fledged colt when dead; cut down in front of the first molar tooth in the upper-jaw, and the tooth cavity will be found filled with the pulp, which in the yearling is developed as the wolf tooth, but is not always cut through at that period of life. Veterinary Surgeon Horn says he has "made an examination of one thousand horses, with a view of settling this question, as to whether the so-called wolf teeth are injurious to the eye. Out of 1,075 examined, he found 13 blind in both eyes; seven blind in one eye only; 37 having affection of one eye or both eyes; 216 had wolf teeth, only one of which showed any symptoms of diseased eyes."

The above is but an indorsement of our own experience. The usual practice of the advocates of blindness is to knock them out, which, in young colts, is rarely accomplished. The root being long is invariably broken off, leaving the root behind while, if injurious at all, it must be the root that is so. At the age of four or five years this root usually has been absorbed to such an extent that they can often be picked out with the thumb nail. Our advice is bathe the eyes with tepid water, and let nature take her course. In answer to your second question we would say, that the symptom given indicates cramp, the best application for which is Prof. R. Jennings' Evincine Liniment. Ask your druggist for it, and if he has not got it, ask him to send for it.

Diseased Lambs.

FORREST HILL, Mich., Jan. 8th, 1883.

Veterinary Editor Michigan Farmer.

DEAR SIR:—As I wrote you some time ago for treatment for some diseased lambs, (see MICHIGAN FARMER of October 24th, 1882), which has called out a series of very interesting and instructive letters on the subject, I take the liberty to explain to you why I did not send you the animals for examination. On the day that I wrote you I took all that showed symptoms of disease (8 in number) and confined them in a small pen in my yard, allowing them to go in at one end of the shed. Theoban feeding clover hay, with a liberal feed of grain, oats and corn mixed once a day. The grain I increased gradually to a very heavy feed. For about four weeks I kept constantly before them a mixture of salt, sulphur, tar and ashes, giving free access to clean fresh water. I give the same once a week now, except that I have added a small portion of sulphate of iron. I have not lost any since I shut them up, and they are all in a thriving condition, although, as you remarked in your reply to my letter, some of them are "tucked up" in appearance.

H. B. ANGELL.

Burlington, Vt., Jan. 30, 1882.

I subscribe to the efficiency of Dr. Williams' Pink Pills. It has been a standard remedy in my family for years.

J. A. ARTHUR.

Deputy Customs Collector.

Burlington, Vt., Jan. 30, 1882.

I have used Dr. Williams' Pink Pills for forty years, and consider it a safe and valuable medicine in all cases of coughs, colds, and for any pulmonary trouble.

I always fall back on this old remedy when the symptoms are alarming, and it has never disappointed me.

IRA SHATTUCK.

CITY ITEMS.

THE new hotel at the Stock Yards is being rushed through with all speed possible, and it will not be long until the drivers can get a lunch without having to walk a mile or more.

SINCE the burning of the Newhall House at Milwaukee, the building inspectors of Detroit are making a rigid inspection of the hotels, theatres and buildings where people are employed in the upper stories.

DETECTIVE D. K. SULLIVAN, who has been connected with the police force since its organization, died suddenly Sunday morning last, of heart disease. Prior to the organization of the police force, he was constable of the 7th ward for a number of years, and was one of the best known men in the city.

MAYOR THOMPSON last week notified James F. O'Neill, of the Park Theatre, that if he allowed the production of the play "Jesse James" at his theatre he would revoke his license. The play was not presented, and now the owner of the piece, who is also the leading character in the drama, has sued O'Neill for \$5,000 damages for non-fulfillment of his part of the contract. The mayor has given notice that for the balance of his term "morality" will be observed.

LAST Monday night fire broke out about seven o'clock in the evening in what is known as the Telegraph Block, on the corner of Griswold and Congress Streets. The fire started in the elevator, and in a few minutes after the discovery of the stairway was in flames, and the egress of those in the upper stories was shut off. The upper floor was occupied by the Western Union Telegraph Company, and at the time of the fire there were thirty employees at work, among them one lady. For a few minutes there was terrible excitement among the crowd who had congregated to witness the fire; the flames of the upper story thronged to the windows, and some acted as if they were preparing to risk a jump to the street, which would have been almost certain death. The trucks with the fire escape ladders arrived in good time, but owing to the telegraph wires, which formed a perfect net at that point, considerable delay was experienced in getting them into position. Finally they reached the upper story, and all descended safely, and the spectators sent up a hearty cheer. The loss on the building is estimated at \$30,000, and is insured.

A VERY good story, and what is more, an authenticated one, is told of a well-known and respected Nottingham manufacturer, who, being with his husband in Paris, and occupied with the colossal shopping which such visits inevitably entail, fell in love with a beautiful French girl, who was a delicate, which was offered to her for the moderate sum of 240 francs. She would instantly have purchased it had she not been deterred by various mysterious signs of disaffection from her husband, which surprised her not a little, as she knew him to be a judge of good looks, and wondered therefore at his lack of appreciation of this beautiful specimen. The moment they left the shop her disappointment broke forth:

"John, why did you keep me from buying that lovely thing? And only 101! I am sure you could not think that dear. Why did you not let me have it?"

"You are quite right, my dear," was the reply of the unmoved John. "We consider that a very superior article; and the reason that I did not want you to buy it was because it came from one of my own frames, and I can let you have as many of the same kind as you like for 15s apiece."

Ladies, It's Just Lovely.

A patent "Rough on Rats" iron holder, 10c; beautiful transparent plaque, 5c; a comic course, Household Troubles, 13c; 10c; a set large size scrap book, finally colored, 5c; a sheet of "Rough on Rats" music, with song and chorus; 5c; the "Sea Side Silly," a fortune teller in verse, filled with comic illustrations and jokes, 5c. All postpaid on receipt of 25c.

E. S. WELLS, Jersey City, N. J.

COMMERCIAL.

DETROIT WHOLESALE MARKET.

DECEMBER, JANUARY 16, 1883.

Choice white wheat, No. 1, 4.00; No. 2, 3.95; No. 3, 3.90; No. 4, 3.85; No. 5, 3.80; No. 6, 3.75; No. 7, 3.70; No. 8, 3.65; No. 9, 3.60; No. 10, 3.55; No. 11, 3.50; No. 12, 3.45; No. 13, 3.40; No. 14, 3.35; No. 15, 3.30; No. 16, 3.25; No. 17, 3.20; No. 18, 3.15; No. 19, 3.10; No. 20, 3.05; No. 21, 3.00; No. 22, 2.95; No. 23, 2.90; No. 24, 2.85; No. 25, 2.80; No. 26, 2.75; No. 27, 2.70; No. 28, 2.65; No. 29, 2.60; No. 30, 2.55; No. 31, 2.50; No. 32, 2.45; No. 33, 2.40; No. 34, 2.35; No. 35, 2.30; No. 36, 2.25; No. 37, 2.20; No. 38, 2.15; No. 39, 2.10; No. 40, 2.05; No. 41, 2.00; No. 42, 1.95; No. 43, 1.90; No. 44, 1.85; No. 45, 1.80; No. 46, 1.75; No. 47, 1.70; No. 48, 1.65; No. 49, 1.60; No. 50, 1.55; No. 51, 1.50; No. 52, 1.45; No. 53, 1.40; No. 54, 1.35; No. 55, 1.30; No. 56, 1.25; No. 57, 1.20; No. 58, 1.15; No. 59, 1.10; No. 60, 1.05; No. 61, 1.00; No. 62, 0.95; No. 63, 0.90; No. 64, 0.85; No. 65, 0.80; No. 66, 0.75; No. 67, 0.70; No. 68, 0.65; No. 69, 0.60; No. 70, 0.55; No. 71, 0.50; No. 72, 0.45; No. 73, 0.40; No. 74, 0.35; No. 75, 0.30; No. 76, 0.25; No. 77, 0.20; No. 78, 0.15; No. 79, 0.10; No. 80, 0.05; No. 81, 0.00; No. 82, 0.00; No. 83, 0.00; No. 84, 0.00; No. 85, 0.00; No. 86, 0.00; No. 87, 0.00; No. 88, 0.00; No. 89, 0.00; No. 90, 0.00; No. 91, 0.00; No. 92, 0.00; No. 93, 0.00; No. 94, 0.00; No. 95, 0.00; No. 96, 0.00; No. 97, 0.00; No. 98, 0.00; No. 99, 0.00; No. 100, 0.00.

Choice white wheat, No. 1, 4.00; No. 2, 3.95; No. 3, 3.90; No. 4, 3.85; No. 5, 3.80; No. 6, 3.75; No. 7, 3.70; No. 8, 3.65; No. 9, 3.60; No. 10, 3.55; No. 11, 3.50; No. 12, 3.45; No. 13, 3.40; No. 14, 3.35; No. 15, 3.30; No. 16, 3.25; No. 17, 3.20; No. 18, 3.15; No. 19, 3.10; No. 20, 3.05; No. 21, 3.00; No. 22, 2.95; No. 23, 2.90; No. 24, 2.85; No. 25, 2.80; No. 26, 2.75; No. 27, 2.70; No. 28, 2.65; No. 29, 2.60; No. 30, 2.55; No. 31, 2.50; No. 32, 2.45; No. 33, 2.40; No. 34, 2.35; No. 35, 2.30; No. 36, 2.25; No. 37, 2.20; No. 38, 2.15; No. 39, 2.10; No. 40, 2.05; No. 41, 2.00; No. 42, 1.95; No. 43, 1.90; No. 44, 1.85; No. 45, 1.80; No. 46, 1.75; No. 47, 1.70; No. 48, 1.65; No. 49, 1.60; No. 50, 1.55; No. 51, 1.50; No. 52, 1.45; No. 53, 1.40; No. 54, 1.35; No. 55, 1.30; No. 56, 1.25; No. 57, 1.20; No. 58, 1.15; No. 59, 1.10; No. 60, 1.05; No. 61, 1.00; No. 62, 0.95; No. 63, 0.90; No. 64, 0.85; No. 65, 0.80; No. 66, 0.75; No. 67, 0.70; No. 68, 0.65; No. 69, 0.60; No. 70, 0.55; No. 71, 0.50; No. 72, 0.45; No. 73, 0.40; No. 74, 0.35; No. 75, 0.30; No. 76, 0.25; No. 77, 0.20; No. 78, 0.15; No. 79, 0.10; No. 80, 0.05; No. 81, 0.00; No. 82, 0.00; No. 83, 0.00; No. 84, 0.00; No. 85, 0.00; No. 86, 0.00; No. 87, 0.00; No. 88, 0.00; No. 89, 0.00; No. 90, 0.00; No. 91, 0.00; No. 92, 0.00; No. 93, 0.00; No. 94, 0.00; No. 95, 0.00; No. 96, 0.00; No. 97, 0.00; No. 98, 0.00; No. 99, 0.00; No. 100, 0.00.

Choice white wheat, No. 1, 4.00; No. 2, 3.95; No. 3, 3.90; No. 4, 3.85; No. 5, 3.80; No. 6, 3.75; No. 7, 3.70; No. 8, 3.65; No. 9, 3.60; No. 10, 3.55; No. 11, 3.50; No. 12, 3.45; No. 13, 3.40; No. 14, 3.35; No. 15, 3.30; No. 16, 3.25; No. 17, 3.20; No. 18, 3.15; No. 19, 3.10; No. 20, 3.05; No. 21, 3.00; No. 22, 2.95; No. 23, 2.90; No. 24, 2.85; No. 25, 2.80; No. 26, 2.75; No. 27, 2.70; No. 28, 2.65; No. 29, 2.60; No. 30, 2.55; No. 31, 2.50; No. 32, 2.45; No. 33, 2.40; No. 34, 2.35; No. 35, 2.30; No. 36, 2.25; No. 37, 2.20; No. 38, 2.15; No. 39, 2.10; No. 40, 2.05; No. 41, 2.00; No. 42, 1.95; No. 43, 1.90; No. 44, 1.85; No. 45, 1.80; No. 46, 1.75; No. 47, 1.70; No. 48, 1.65; No. 49, 1.60; No. 50, 1.55; No. 51, 1.50; No. 52, 1.45; No. 53, 1.40; No. 54, 1.35; No. 55, 1.30; No. 56, 1.25; No. 57, 1.20; No. 58, 1.15; No. 59, 1.10; No. 60, 1.05; No. 61, 1.00; No. 62, 0.95; No. 63, 0.90; No. 64, 0.85; No. 65, 0.80; No. 66, 0.75; No. 67, 0.70; No. 68, 0.65; No. 69, 0.60; No. 70, 0.55; No. 71, 0.50; No. 72, 0.45; No. 73, 0.40; No. 74, 0.35; No. 75, 0.30; No. 76, 0.25; No. 77, 0.20; No. 78, 0.15; No. 79, 0.10; No. 80, 0.05; No. 81, 0.00; No. 82, 0.00; No. 83, 0.00; No. 84, 0.00; No. 85, 0.00; No. 86, 0.00; No. 87, 0.00; No. 88, 0.00; No. 89, 0.00; No. 90, 0.00; No. 91, 0.00; No. 92, 0.00; No. 93, 0.00; No. 94, 0.00; No. 95, 0.00; No. 96, 0.00; No. 97, 0.00; No. 98, 0.00; No. 99, 0.00; No. 100, 0.00.

Choice white wheat, No. 1, 4.00; No. 2, 3.95; No. 3, 3.90; No. 4, 3.85; No. 5, 3.80; No. 6, 3.75; No. 7, 3.70; No. 8, 3.65; No. 9, 3.60; No. 10, 3.55; No. 11, 3.50; No. 12, 3.45; No. 13, 3.40; No. 14, 3.35; No. 15, 3.30; No. 16, 3.25; No. 17, 3.20; No. 18, 3.15; No. 19, 3.10; No. 20, 3.05; No. 21, 3.00; No. 22, 2.95; No. 23, 2.90; No. 24, 2.85; No. 25, 2.80; No. 26, 2.75; No. 27, 2.70; No. 28, 2.65; No. 29, 2.60; No. 30, 2.55; No. 31, 2.50; No. 32, 2.45; No. 33, 2.40; No. 34, 2.35; No. 35, 2.30; No. 36, 2.25; No. 37, 2.20; No. 38, 2.15; No. 39, 2.10; No. 40, 2.05; No. 41, 2.00; No. 42, 1.95; No. 43, 1.90; No. 44, 1.85; No. 45, 1.80; No. 46, 1.75; No. 47, 1.70; No. 48, 1.65; No. 49, 1.60; No. 50, 1.55; No. 51, 1.50; No. 52, 1.45; No. 53, 1.40; No. 54, 1.35; No. 55, 1.30; No. 56, 1.25; No. 57, 1.20; No. 58, 1.15; No. 59, 1.10; No. 60, 1.05; No. 61, 1.00; No. 62, 0.95; No. 63, 0.90; No. 64, 0.85; No. 65, 0.80; No. 66, 0.75; No. 67, 0.70; No. 68, 0.65; No. 69, 0.60; No. 70, 0.55; No. 71, 0.50; No. 72, 0.45; No. 73, 0.40; No. 74, 0.35; No. 75, 0.30; No. 76, 0.25; No. 77, 0.20; No. 78, 0.15; No. 79, 0.10; No. 80, 0.05; No. 81, 0.00; No. 82, 0.00; No. 83, 0.00; No. 84, 0.00; No. 85, 0.00; No. 86, 0.00; No. 87, 0.00; No. 88, 0.00; No. 89, 0.00; No. 90, 0.00; No. 91, 0.00; No. 92, 0.00; No. 93, 0.00; No. 94, 0.00; No. 95, 0.00; No. 96, 0.00; No. 97, 0.00; No. 98, 0.00; No. 99, 0.00; No. 100, 0.00.

Choice white wheat, No. 1, 4.00; No. 2, 3.95; No. 3, 3.90; No. 4, 3.85; No. 5, 3.80; No. 6, 3.75; No. 7, 3.70; No. 8, 3.65; No. 9, 3.60; No. 10, 3.55; No. 11, 3.50; No. 12, 3.45; No. 13, 3.40; No. 14, 3.35; No. 15, 3.30; No. 16, 3.25; No. 17, 3.20; No. 18, 3.15; No. 19, 3.10; No. 20, 3.05; No. 21, 3.00; No. 22, 2.95; No. 23, 2.90; No. 24, 2.85; No. 25, 2.80; No. 26, 2.75; No. 27, 2.70; No. 28, 2.65; No. 29, 2.60; No. 30, 2.55; No. 31, 2.50; No. 32, 2.45; No. 33, 2.40; No. 34, 2.35; No. 35, 2.30; No. 36, 2.25; No. 37, 2.20; No. 38, 2.15; No. 39, 2.10; No. 40, 2.05; No. 41, 2.00; No. 42, 1.95; No. 43, 1.90; No. 44, 1.85; No. 45, 1.80; No. 46, 1.75; No. 47, 1.70; No. 48, 1.65; No. 49, 1.60; No. 50, 1.55; No. 51, 1.50; No. 52, 1.45; No. 53, 1.40; No. 54, 1.35; No. 55, 1.30; No. 56, 1.25; No. 57, 1.20; No. 58, 1.15; No. 59, 1.10; No. 60, 1.05; No. 61, 1.00; No. 62, 0.95; No. 63, 0.90; No. 64, 0.85; No. 65, 0.80; No. 66, 0.75; No. 67, 0.70; No. 68, 0.65; No. 69, 0.60; No. 70, 0.55; No. 71, 0.50; No. 72, 0.45; No. 73, 0.40; No. 74, 0.35; No. 75, 0.30; No. 76, 0.25; No. 77, 0.20; No. 78, 0.15; No. 79, 0.10; No. 80, 0.05; No. 81, 0.00; No. 82, 0.00; No. 83, 0.00; No. 84, 0.00; No. 85, 0.00; No. 86, 0.00; No. 87, 0.00; No. 88, 0.00; No. 89, 0.00; No. 90, 0.00; No. 91, 0.00; No. 92, 0.00; No. 93, 0.00; No. 94, 0.00; No. 95, 0.00; No. 96, 0.00; No. 97, 0.00; No. 98, 0.00; No. 99, 0.00; No. 100, 0.00.

Choice white wheat, No. 1, 4.00; No. 2, 3.95; No. 3, 3.90; No. 4, 3.85; No. 5, 3.80; No. 6, 3.75; No. 7, 3.70; No. 8, 3.65; No. 9, 3.60; No. 10, 3.55; No. 11, 3.50; No. 12, 3.45; No. 13, 3.40; No. 14, 3.35; No. 15, 3.30; No. 16, 3.25; No. 17, 3.20; No. 18, 3.15; No. 19, 3.10; No. 20, 3.05; No. 21, 3.00; No. 22, 2.95; No. 23, 2.90; No. 24, 2.85; No. 25, 2.80; No. 26, 2.75; No. 27, 2.70; No. 28, 2.65; No. 29, 2.60; No. 30, 2.55; No. 31, 2.50; No. 32, 2.45; No. 33, 2.40; No. 34, 2.35; No. 35, 2.30; No. 36, 2.25; No. 37, 2.20; No. 38, 2.15; No. 39, 2.10; No. 40, 2.05; No. 41, 2.00; No. 42, 1.95; No. 43, 1.90; No. 44, 1.85; No. 45, 1.80; No. 46, 1.75; No. 47, 1.70; No. 48, 1.65; No. 49, 1.60; No. 50, 1.55; No. 51, 1.50; No. 52, 1.45; No. 53, 1.40; No. 54, 1.35; No. 55, 1.30; No. 56, 1.25; No. 57, 1.20; No. 58, 1.15; No. 59, 1.10; No. 60, 1.05; No. 61, 1.00; No. 62, 0.95; No. 63, 0.90; No. 64, 0.85; No. 65, 0.80; No. 66, 0.75; No. 67, 0.70; No. 68, 0.65; No. 69, 0.60; No. 70, 0.55; No. 71, 0.50; No. 72, 0.45; No. 73, 0.40; No. 74, 0.35; No. 75, 0.30; No. 76, 0.25; No. 77, 0.20; No. 78, 0.15;